| 543 | HISCV20 | 858108 | 553 | 123 - 1340 | 1958 | Pro-58 to His-71, Thr-168 to His-174, Phe-177 to Lys-192, Gln-226 to Ser-234. | 1, S0026: 1, H0136: 1, H0216: 1 and H0506: 1. AR060: 1, AR089: 1, AR061: 1, AR053: 0, AR052: 0, AR033: 1, AR104: 1, AR096: 0, AR039: 0, AR055: 0 L0752: 13, S0003: 11, L0754: 11, L0794: 9, H0521: 7, L0777: 6, H0250: 5, L0770: 5, L0766: 5, L0755: 5, S0242: 5, H0543: 5, H0046: 4, L0803: 4, L0804: 4, S0196: 4, H0556: 3, S0440: 3, H0529: 3, L0756: 3, L0599: 3, H0220: 2, H0638: 2, S0408: 2, H0486: 2, H0581: 2, S0214: 2, H0553: 2, H0652: 2, S0422: 2, L0771: 2, L0773: 2, L0775: 2, L0806: 2, L0805: 2, L0779: 2, H0542: 2, L0600: 2, H0656: 1, S0358: 1, S0360: 1, S0476: 1, H0393: 1, H0270: 1, L0021: 1, H0318: 1, H0421: 1, H0596: 1, H0572: 1, H0057: 1, H0373: 1, H0355: 1, H0375: 1, H0674: 1, H0090: 1, H0634: 1, H0646: | | 76-99, 314-332, 337-357, 383-400, 106-124, 141-157, 271-287, 242-258, 297-313 |

544	HHEUE88	858214	554	478 - 1167	1959	Asn-5 to Glu-15.				102-118

1, L0769: 1, L0372: 1,
L0764: 1, L0387: 1, L0784:
1, L0607: 1, L0659: 1,
L0788: 1, L0666: 1, L0663:
1, S0148: 1, H0659: 1,
H0651: 1, S0328: 1, H0539:
1, S0152: 1, H0478: 1,
L0748: 1, L0740: 1, L0731:
1, L0759: 1, L0362: 1,
H0422: 1 and S0424: 1.

AR033: 2, AR060: 2,
AR089: 1, AR061: 1,
AR096: 1, AR039: 0,
AR055: 0, AR052: 0,
AR104: 0, AR053: 0
  L0439: 5, H0592: 2,
H0039: 2, H0494: 2, L0662:
2, L0659: 2, H0521: 2,
L0748: 2, S0218: 1, H0657:
1, S0418: 1, S0376: 1,
S0360: 1, H0580: 1, H0431:
1, H0333: 1, L0482: 1,
H0581: 1, H0596: 1, H0050:
1, H0014: 1, H0622: 1,
H0038: 1, L0564: 1, H0561:
1, S0422: 1, L0770: 1,
L0800: 1, L0768: 1, L0803:
1, L0805: 1, L0776: 1,
L0518: 1, L0352: 1, H0520:
1, L0779: 1, L0759: 1,

| 545 | HHESR56 | 858221 | 555 | 22 - 417 | 1960 | Arg-44 to Gln-55. | AR053: 10, AR052: 10, AR089: 8, AR096: 7, AR033: 4, AR060: 3, AR061: 3, AR055: 2, AR104: 2, AR039: 0 S0410: 11, L0803: 4, L0659: 4, H0618: 3, H0135: 3, L0637: 3, L0809: 3, L0666: 3, H0696: 3, L0779: 3, S0376: 2, S0132: 2, H0592: 2, H0253: 2, H0050: 2, H0087: 2, H0560: 2, L0761: 2, S0374: 2, L0743: 2, L0751: 2, L0749: 2, L0731: 2, L0759: 2, H0542: 2, H0543: 2, H0171: 1, H0225: 1, H0341: 1, S0212: 1, H0483: 1, S0444: 1, S0408: 1, H0393: 1, L0717: 1, H0370: 1, H0249: 1, H0486: 1, H0101: 1, H0250: 1, H0706: 1, T0048: 1, H0581: 1, H0545: 1, H0009: 1, H0024: 1, H0271: 1, H0288: 1, H0617: 1, S0364: 1, H0163: 1, H0551: 1, H0488: 1, H0100: 1, H0494: 1, L0497: 1, L0770: 1, L0592: 1, L0593: 1, H0543: 1 and H0506: 1. | | | 73-98, 8-26, 100-116 |

#	Clone	ID		Range	SEQ	Description	Annotations	
546	HHENU62	858281	556	91 - 477	1961	Leu-115 to Pro-129.	L0769: 1, L5575: 1, L5565: 1, L3905: 1, L0646: 1, L0764: 1, L0766: 1, L0650: 1, L0774: 1, L0378: 1, L0788: 1, L0790: 1, L0664: 1, L0665: 1, S0126: 1, H0711: 1, S0330: 1, H0436: 1, S0392: 1, S0037: 1, L0742: 1, L0755: 1, L0758: 1, H0445: 1, H0653: 1 and H0423: 1. AR096: 2, AR055: 1, AR089: 1, AR061: 0, AR060: 0, AR104: 0, AR039: 0	28-61, 91-109, 9-25, 71-87
547	HE2RG38	858353	557	54 - 1151	1962	Met-1 to Glu-8, Glu-37 to Asp-58, Gln-75 to Leu-81.	L0766: 2, L0749: 2, H0650: 1, H0581: 1, H0252: 1, H0538: 1, L0771: 1, L0809: 1, L0747: 1, L0757: 1 and H0543: 1. AR039: 2, AR104: 1, AR096: 1, AR061: 1, AR089: 1, AR060: 1, AR053: 0, AR033: 0, AR055: 0, AR052: 0 L0761: 8, L0806: 5, H0593: 5, H0436: 5, H0581: 4, H0052: 4, L0766: 4, H0521: 4, L0745: 4, L0731: 4	266-295, 243-266, 302-318, 82-98

4, L0759: 4, S0356: 3,
L0600: 3, H0624: 2, H0713: 2, H0333: 2, H0618: 2,
H0546: 2, H0545: 2, H04457: 2, H0617: 2, H0606: 2,
H0100: 2, L0770: 2, L0764: 2, L0774: 2, L0775: 2,
L0653: 2, L0659: 2, L0547: 2, L0809: 2, L0666: 2,
H0672: 2, H0539: 2, H0522: 2, L0751: 2, L0747: 2,
L0750: 2, L0752: 2, L0757: 2, H0543: 2, H0583: 1,
H0341: 1, H0484: 1, H0669: 1, H0306: 1, H0458: 1,
S0418: 1, S0420: 1, H0675: 1, H0676: 1, S0045: 1,
H0550: 1, H0392: 1, H0592: 1, H0586: 1, H0587: 1,
H0485: 1, H0635: 1, H0575: 1, H0253: 1, H0318: 1,
H0544: 1, H0009: 1, H0688: 1, H0634: 1, H0087: 1,
H0551: 1, L0351: 1, S0438: 1, H0641: 1, H0649: 1,
S0002: 1, H0695: 1, L0763: 1, L3904: 1, L0773: 1,
L0767: 1, L0649: 1, L0803: 1, L0650: 1, L0375: 1,
L0776: 1, L0657: 1, L0783:

| 548 | HCEVS49 | 858355 | 558 | 47 - 3001 | 1963 | Met-1 to Ser-6, Leu-10 to Ser-17, Met-20 to Ser-25. | 1, L4501: 1, L0663: 1, L0565: 1, H0519: 1, S0126: 1, H0689: 1, H0683: 1, H0684: 1, H0659: 1, H0670: 1, S0330: 1, S0380: 1, H0696: 1, H0134: 1, H0555: 1, L0609: 1, S0027: 1, S0028: 1, L0741: 1, L0743: 1, L0439: 1, L0777: 1, L0780: 1, S0434: 1, S0436: 1, H0216: 1, H0542: 1, H0423: 1 and H0506: 1. AR053: 4, AR089: 3, AR052: 3, AR096: 2, AR060: 1, AR033: 1, AR104: 1, AR061: 1, AR039: 0, AR055: 0 H0052: 8, L0439: 7, H0556: 6, H0618: 6, H0265: 5, L0758: 5, H0253: 4, L0764: 4, H0617: 3, S0152: 3, H0341: 2, S0420: 2, L0717: 2, H0559: 2, H0251: 2, H0620: 2, H0428: 2, H0135: 2, T0041: 2, L0809: 2, L0368: 2, L0665: 2, H0520: 2, H0547: 2, H0658: 2, L0744: 2, L0754: 2, L0591: 2, L0593: 2, L0601: 2, T0002: 1, H0686: 1, | 673-697, 319-335, 635-651, 804-820, 438-454, 876-892 |

| 549 | HKGBP90 | 858433 | 559 | 229 - 834 | 1964 | Leu-21 to Tyr-28. | S0040: 1, S0418: 1, S0358: 1, S0376: 1, H0261: 1, H0549: 1, H0550: 1, T0039: 1, H0318: 1, S0474: 1, H0194: 1, T0110: 1, H0046: 1, H0012: 1, S0051: 1, H0266: 1, H0181: 1, L0456: 1, H0040: 1, H0087: 1, H0100: 1, T0042: 1, H0494: 1, S0438: 1, S0002: 1, H0529: 1, L0772: 1, L0800: 1, L0662: 1, L0363: 1, L0794: 1, L0649: 1, L0803: 1, L0774: 1, L0375: 1, L0378: 1, L0658: 1, L0783: 1, L0790: 1, L0791: 1, L0792: 1, L0666: 1, S0148: 1, L0438: 1, L0352: 1, H0519: 1, H0670: 1, H0672: 1, H0521: 1, H0696: 1, S0044: 1, H0555: 1, H0436: 1, L0745: 1, L0747: 1, L0779: 1, L0731: 1, S0031: 1, H0445: 1, H0595: 1, L0608: 1, L0361: 1, H0665: 1, H0667: 1, H0542: 1, S0424: 1, H0008: 1 and H0352: 1. AR096: 1, AR053: 1, AR089: 1, AR033: 1, | | | 59-77, 87-103, 142- |

							AR061: 1, AR060: 0, AR052: 0, AR055: 0, AR104: 0 H0266: 2, L0748: 2, L0777: 2, H0486: 1, H0373: 1, H0494: 1, S0014: 1, H0538: 1, L0803: 1, S0044: 1, L0740: 1, L0779: 1, L0759: 1, H0445: 1 and H0665: 1.	158, 186-202
550	HOELK66	858436	560	105 - 1442	1965	His-87 to Glu-93, Pro-217 to Leu-222, Glu-224 to Lys-230, Val-264 to Trp-275, Phe-311 to Asn-316, Asp-344 to Gly-349, Gly-363 to Gln-379, Gly-398 to Gly-404, Gly-437 to Ser-446.	AR096: 20, AR089: 16, AR052: 13, AR053: 10, AR039: 9, AR104: 9, AR060: 8, AR055: 8, AR033: 6, AR061: 4 S0476: 2, H0713: 1, H0580: 1, S0045: 1, S0132: 1, H0599: 1, L0143: 1, H0551: 1, H0488: 1, S0126: 1, L0777: 1, L0731: 1, L0485: 1 and S0242: 1.	59-75, 232-248, 177-193
551	HHFMX34	858449	561	69 - 686	1966	Ile-49 to Gln-55, Phe-57 to Ala-63.	AR096: 17, AR039: 14, AR089: 12, AR060: 11, AR055: 11, AR053: 10, AR033: 10, AR104: 9, AR052: 9, AR061: 5 H0556: 1, S0420: 1, S0358: 1, H0619: 1, H0373: 1, H0702: 1, S0027: 1,	106-123, 23-39

552	HOUED48	858450	562	412 - 966	1967	Glu-46 to Arg-53.	H0423: 1 and H0422: 1. AR055: 6, AR052: 4, AR033: 4, AR053: 4, AR060: 3, AR061: 3, AR096: 2, AR089: 2, AR039: 2, AR104: 1 L0766: 13, L0439: 6, H0012: 3, H0266: 3, L0770: 3, L0761: 3, L0655: 3, H0650: 2, H0031: 2, L0653: 2, L0776: 2, L0751: 2, L0747: 2, H0171: 1, S0040: 1, S6024: 1, H0656: 1, S0282: 1, S0045: 1, S0132: 1, S0222: 1, L0021: 1, H0051: 1, H0271: 1, H0688: 1, H0383: 1, H0412: 1, L0769: 1, L0642: 1, L0775: 1, L0375: 1, L0659: 1, L0664: 1, L0665: 1, H0672: 1, H0521: 1, H0436: 1, S0027: 1, S0028: 1, S0206: 1, L0743: 1, L0750: 1, L0757: 1, L0758: 1, L0097: 1, H0423: 1, S0456: 1 and H0506: 1.	11	107-129, 62-78, 81-97
553	HHBBI26	858451	563	213 - 749	1968	Pro-8 to Leu-14.	AR033: 2, AR060: 2, AR053: 2, AR096: 2, AR039: 2, AR104: 1,		47-63

554	HHAUZ72	858492	564	216 - 626	1969	Thr-33 to Pro-39.	AR089: 1, AR055: 1, AR061: 1, AR052: 0 H0583: 1, H0650: 1, H0250: 1, H0599: 1, H0373: 1, H0266: 1, S0038: 1, S0044: 1, S0028: 1 and H0653: 1.	AR052: 2, AR053: 2, AR055: 2, AR096: 2, AR061: 1, AR089: 1, AR060: 1, AR033: 1, AR039: 1, AR104: 1 H0635: 2, S0418: 1, H0388: 1, H0436: 1 and S0031: 1.	79-98, 39-56, 15-31
555	HWMAM4 1	858536	565	231 - 638	1970			AR096: 28, AR053: 10, AR039: 5, AR089: 5, AR052: 5, AR061: 3, AR055: 3, AR060: 2, AR033: 2, AR104: 2 S0007: 5, L0742: 5, L0731: 5, S0444: 4, L0769: 4, L0766: 4, L0740: 4, L0747: 4, L0749: 4, L0756: 4, L0596: 4, H0031: 3, L0065: 3, L0775: 3, L0809: 3, S0126: 3, L0759: 3, S0354: 2, H0438: 2, H0083: 2, L0371: 2, L0770: 2,	10-43, 111-132, 78-96, 39-55

| 556 | HCEOV70 | 858578 | 566 | 359 - 694 | 1971 | Ser-9 to Arg-15. | L0772: 2, L0803: 2, L0776: 2, L0783: 2, H0555: 2, L0439: 2, L0755: 2, L0758: 2, L0591: 2, S0011: 2, H0556: 1, H0685: 1, H0656: 1, H0341: 1, S0418: 1, S0360: 1, H0331: 1, H0632: 1, H0013: 1, H0349: 1, H0546: 1, H0566: 1, S0022: 1, H0135: 1, H0040: 1, H0616: 1, S0386: 1, H0494: 1, S0438: 1, H0130: 1, H0646: 1, L0637: 1, L0761: 1, L0372: 1, L0800: 1, L0767: 1, L0794: 1, L0517: 1, L0647: 1, L0666: 1, L0663: 1, H0144: 1, T0068: 1, H0520: 1, H0690: 1, S0330: 1, H0521: 1, S3012: 1, L0777: 1, S0436: 1, H0543: 1 and H0352: 1. | AR055: 15, AR060: 13, AR033: 12, AR089: 9, AR104: 8, AR052: 8, AR061: 7, AR096: 7, AR039: 7, AR053: 6 | 77-93 |
| 557 | HKGDL95 | 858584 | 567 | 278 - 1690 | 1972 | | | AR052: 6, AR096: 4, AR053: 4, AR060: 3, | 49-66 |

| 558 | HSKGN12 | 858602 | 568 | 378 - 776 | 1973 | Asp-28 to Trp-33, Gly-59 to Ser-71. | AR089: 3, AR033: 2, AR104: 2, AR061: 1, AR055: 1, AR039: 0 S0010: 3, L0731: 3, H0542: 2, S0134: 1, L0002: 1, S0418: 1, H0369: 1, H0486: 1, H0013: 1, S0280: 1, H0581: 1, S0049: 1, H0057: 1, S0022: 1, H0538: 1, H0529: 1, L0761: 1, L0667: 1, L0803: 1, L0653: 1, L0647: 1, L0793: 1, H0144: 1, L0355: 1, S0434: 1 and H0422: 1. | AR055: 8, AR053: 6, AR104: 6, AR060: 6, AR033: 6, AR096: 5, AR052: 5, AR089: 4, AR061: 4, AR039: 3 L0748: 11, L0752: 5, S0003: 4, H0638: 3, L0747: 3, L0755: 3, L0759: 3, H0171: 2, T0114: 2, H0674: 2, S0422: 2, L0764: 2, L0766: 2, L0775: 2, L0740: 2, L0754: 2, L0749: 2, L0758: 2, H0170: 1, T0002: 1, H0295: 1, H0341: 1, S0212: 1, S0442: 1, S0444: 1, H0574: 1, H0156: 1, | 3-29, 33-60, 76-98, 104-121 |

| 559 | HCEGR84 | 858644 | 569 | 173 - 691 | 1974 | Asn-30 to Cys-37. | H0575: 1, H0596: 1, H0530: 1, L0157: 1, H0123: 1, H0620: 1, S0388: 1, H0428: 1, H0031: 1, H0264: 1, S0014: 1, S0450: 1, H0529: 1, L0763: 1, L0770: 1, L0803: 1, L0804: 1, L0776: 1, L0655: 1, L0809: 1, S0052: 1, S0374: 1, H0520: 1, H0547: 1, S0122: 1, H0670: 1, H0648: 1, H0521: 1, S3014: 1, L0777: 1, L0780: 1, L0731: 1, H0445: 1, L0589: 1 and S0194: 1.

AR104: 18, AR052: 17, AR033: 16, AR053: 9, AR096: 8, AR089: 6, AR060: 5, AR039: 4, AR061: 4, AR055: 3, S0414: 17, L0758: 14, L0752: 13, L0740: 12, S0222: 11, L0439: 11, H0441: 8, H0052: 8, L0770: 8, L0777: 8, L0741: 7, S0010: 6, H0327: 6, S0036: 6, L0779: 6, H0620: 5, H0051: 5, L0803: 5, S0051: 5, H0644: 4, L0805: 4, L0809: 4, L0742: 4, L0744: 4, H0599: 3, H0059: 3, | 55-86, 90-115, 123-147, 10-30, 45-61 |

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L0768: 3, L0804: 3, L0774: 3, H0144: 3, S0330: 3, L0751: 3, L0754: 3, L0750: 3, S0412: 3, S0300: 2, H0438: 2, H0012: 2, S0050: 2, S0388: 2, T0010: 2, H0615: 2, H0553: 2, L0769: 2, L0794: 2, L0776: 2, L0789: 2, L0666: 2, L0663: 2, L0438: 2, L0743: 2, L0753: 2, L0755: 2, L0759: 2, S0031: 2, S0260: 2, L0608: 2, H0717: 1, H0716: 1, S6024: 1, S0282: 1, L0005: 1, S0007: 1, S0220: 1, H0586: 1, H0333: 1, H0013: 1, S0049: 1, H0050: 1, H0023: 1, H0399: 1, H0688: 1, H0040: 1, T0067: 1, S0386: 1, H0100: 1, S0039: 1, S0112: 1, L0351: 1, S0294: 1, S0440: 1, L0763: 1, L0800: 1, L0764: 1, L0662: 1, L0775: 1, L0651: 1, L0661: 1, L0807: 1, L0657: 1, L0793: 1, L0664: 1, H0520: 1, H0547: 1, H0593: 1, H0689: 1, H0670: 1, H0648: 1, H0696: 1, L0609: 1, L0747: 1,

560	HMIBL51	858727	570	817 - 1185	1975		L0756: 1, L0731: 1, S0434: 1 and S0021: 1. AR055: 17, AR033: 9, AR061: 9, AR060: 8, AR052: 8, AR089: 6, AR104: 5, AR096: 5, AR053: 5, AR039: 4 L0439: 3, H0455: 1, H0427: 1, H0575: 1, S0010: 1, H0390: 1, S0346: 1, L0163: 1, S6028: 1, H0428: 1, S0150: 1 and L0743: 1.	103-122, 6-22
561	HFXJP30	858754	571	32 - 946	1976	Trp-8 to Arg-14, Asp-74 to Gln-79, Ala-96 to Thr-104.	AR052: 12, AR053: 7, AR096: 6, AR089: 4, AR039: 4, AR104: 3, AR055: 3, AR060: 3, AR061: 3, AR033: 2 H0419: 3, S0282: 2, S0028: 2, H0717: 1, H0381: 1, L0105: 1, H0135: 1, S0052: 1 and S0044: 1.	188-227, 269-293, 182-202, 50-72, 118-137, 153-170, 241-258, 14-30
562	HCHMP94	858877	572	85 - 603	1977	Asn-159 to Thr-173.	AR039: 5, AR033: 4, AR060: 4, AR096: 3, AR052: 3, AR089: 2, AR055: 2, AR104: 2, AR061: 2, AR053: 1 L0777: 4, L0751: 3, L0747: 3, H0661: 2, L0648: 2, L0561: 2, L0779: 2,	99-126, 19-37, 70-86

| 563 | HOHBO69 | 858909 | 573 | 76 - 378 | 1978 | Met-1 to Ser-8, Gln-37 to Asn-42, Lys-47 to Glu-54, Glu-61 to Gly-69. | L0753: 2, S0342: 1, H0484: 1, S0358: 1, L0009: 1, H0411: 1, S0222: 1, S6014: 1, H0546: 1, H0123: 1, H0188: 1, S0366: 1, H0413: 1, H0494: 1, S0344: 1, H0529: 1, L0769: 1, L0627: 1, L0774: 1, L0378: 1, L0776: 1, L0655: 1, L0663: 1, S0148: 1, S0380: 1, H0478: 1, L0743: 1, L0439: 1, L0750: 1 and S0196: 1. AR096: 2, AR089: 1, AR104: 1, AR060: 1, AR061: 1, AR033: 1, AR055: 1, AR039: 0, AR052: 0, AR053: 0 S0126: 21, S0212: 14, S0250: 8, S0022: 8, S0028: 7, H0266: 6, S0040: 5, L0565: 4, S0420: 3, S0390: 3, L0740: 3, S0418: 2, H0550: 2, H0615: 2, H0622: 2, H0623: 2, S0208: 2, L0751: 2, L0777: 2, S0134: 1, S0180: 1, S0298: 1, S0360: 1, H0619: 1, H0486: 1, H0575: 1, H0544: 1, H0545: 1, H0050: 1, H0024: 1, H0551: 1, H0100: 1, | 3q11.1-q13.2 | 600882 | 77-96 |

414

| 564 | HBJHY72 | 858921 | 574 | 634 - 137 | 1979 | Asn-7 to Arg-15, His-143 to Phe-148. | AR052: 12, AR055: 8, AR053: 8, AR033: 6, AR089: 6, AR061: 6, AR060: 5, AR096: 1, AR104: 1, AR039: 0 L0794: 5, L0766: 3, L0759: 3, S0212: 2, H0318: 2, L0803: 2, L0804: 2, L0378: 2, L0665: 2, L0438: 2, L0439: 2, L0749: 2, L0591: 2, L0599: 2, L0362: 2, H0686: 1, S0342: 1, S0134: 1, H0656: 1, H0669: 1, S0358: 1, H0370: 1, H0069: 1, S0346: 1, H0251: 1, H0050: 1, H0373: 1, H0266: 1, S0022: 1, L0483: 1, H0553: 1, H0163: 1, H0090: 1, H0116: 1, H0509: 1, S0426: 1, H0529: 1, L0769: 1, L0638: 1, L0646: 1, L0648: 1, L0768: 1, | S0015: 1, H0538: 1, L0598: 1, L0772: 1, L0800: 1, L0662: 1, L0649: 1, L0775: 1, H0519: 1, H0593: 1, S3014: 1, S0032: 1, L0757: 1, S0434: 1, H0653: 1, H0665: 1, H0667: 1, S0276: 1 and S0196: 1. | 89-106, 126-142, 56-72 |

| 565 | HWEAD78 | 858922 | 575 | 1026 – 2279 | 1980 | Pro-54 to Tyr-61, Asp-132 to Leu-139, Ser-176 to Asp-183. | AR055: 183, AR096: 110, AR033: 22, AR061: 22, AR089: 21, AR060: 20, AR104: 18, AR039: 4, AR052: 4, AR053: 3 H0341: 2, S0045: 2, H0551: 2, H0556: 1, S0376: 1, H0619: 1, H0437: 1, H0601: 1, H0333: 1, H0485: 1, H0013: 1, H0635: 1, H0590: 1, H0318: 1, H0009: 1, H0266: 1, H0267: 1, S0003: 1, H0615: 1, H0644: 1, H0383: 1, H0068: 1, H0316: 1, H0116: 1, H0264: 1, H0561: 1, L0768: 1, L0794: 1, H0144: 1, H0436: 1, S0028: 1, L0744: 1, H0445: 1, H0542: 1 and S0424: 1. | L0381: 1, L0375: 1, L0653: 1, L0659: 1, L0782: 1, L0809: 1, L0793: 1, H0691: 1, H0435: 1, H0659: 1, H0648: 1, S0152: 1, S0390: 1, S0027: 1, S0028: 1, L0777: 1, L0731: 1, S0260: 1, L0596: 1, S0192: 1 and S0424: 1. | 243-259, 71-87, 318-334 |

566	HFIBK06	858956	576	110 - 1213	1981			44-62, 144-160
						Arg-3 to Phe-10, Val-18 to Cys-23, His-64 to Tyr-73, Ser-181 to Gly-186, Glu-211 to Pro-221, Gly-284 to Ser-289, Thr-296 to Tyr-301, Phe-308 to Gly-318, Pro-321 to Asp-326.	AR039: 1, AR055: 1, AR089: 1, AR096: 0, AR061: 0, AR060: 0, AR053: 0, AR052: 0, AR104: 0, AR033: 0 S0192: 19, H0551: 9, S0002: 9, H0521: 9, L0740: 9, L0731: 8, S0152: 6, H0090: 5, H0547: 5, L0777: 5, S0360: 4, S0214: 4, S0144: 4, L0776: 4, L0747: 4, L0759: 4, L0596: 4, S0212: 3, S0278: 3, L0770: 3, L0766: 3, H0144: 3, S0126: 3, S0342: 2, S0418: 2, S0420: 2, S0046: 2, S0222: 2, H0497: 2, H0575: 2, H0327: 2, H0266: 2, S0250: 2, S0003: 2, H0031: 2, H0644: 2, H0040: 2, H0264: 2, H0623: 2, S0344: 2, L0598: 2, L0769: 2, L0662: 2, L0804: 2, L0775: 2, L0663: 2, L0565: 2, S0330: 2, S0028: 2, S0206: 2, L0439: 2, L0754: 2, L0750: 2, L0756: 2, L0752: 2, L0599: 2, S0276: 2, H0556: 1, S0040: 1, S0001: 1, S0282: 1, S0358: 1,	

S0376: 1, H0580: 1, H0619: 1, H0411: 1, H0409: 1, H0586: 1, H0587: 1, H0574: 1, L0622: 1, H0486: 1, T0039: 1, T0040: 1, T0109: 1, L0021: 1, T0082: 1, H0421: 1, H0194: 1, H0231: 1, H0544: 1, H0046: 1, H0024: 1, H0014: 1, H0051: 1, T0010: 1, S6028: 1, H0553: 1, H0628: 1, L0055: 1, H0383: 1, H0212: 1, H0124: 1, H0598: 1, H0038: 1, H0634: 1, H0268: 1, H0412: 1, H0056: 1, H0494: 1, H0625: 1, H0641: 1, H0633: 1, S0142: 1, S0210: 1, S0426: 1, H0529: 1, L0369: 1, L0372: 1, L0646: 1, L0374: 1, L0764: 1, L0768: 1, L0794: 1, L0803: 1, L0805: 1, L0652: 1, L0783: 1, L0664: 1, S0052: 1, H0519: 1, H0670: 1, H0672: 1, H0539: 1, L0602: 1, S0350: 1, S3012: 1, S0037: 1, S0032: 1, L0744: 1, L0751: 1, L0779: 1, L0753: 1, L0757: 1, S0434: 1, L0581: 1, L0593: 1,

567	HE9RF77	858957	577	150 - 974	1982	Arg-9 to Lys-26, Pro-79 to Asp-87, Arg-200 to Trp-219.	S0026: 1, H0136: 1, H0216: 1, H0542: 1, H0423: 1 and S0412: 1.		
							AR055: 5, AR061: 5, AR096: 3, AR060: 3, AR033: 3, AR052: 3, AR053: 3, AR039: 2, AR089: 2, AR104: 1 L0777: 7, L0769: 6, L0771: 5, L0794: 5, L0805: 4, H0734: 3, H0031: 3, L0803: 3, L0740: 3, H0265: 2, S0360: 2, H0635: 2, H0318: 2, H0457: 2, S0364: 2, H0090: 2, L0662: 2, H0144: 2, L0748: 2, L0439: 2, L0755: 2, H0556: 1, H0713: 1, S6024: 1, H0341: 1, S0418: 1, S0356: 1, S0354: 1, S0376: 1, S0408: 1, S0410: 1, S0278: 1, H0370: 1, H0250: 1, L0021: 1, H0599: 1, H0575: 1, H0036: 1, H0052: 1, H0567: 1, L0471: 1, H0024: 1, H0083: 1, H0687: 1, S0003: 1, H0615: 1, H0030: 1, L0055: 1, H0591: 1, S0294: 1, H0647: 1, L0598: 1, L0667: 1, L0772: 1, L0646:		180-198, 136-152, 235-251

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568	HCEEU61	859028	578	341 - 3	1983		1, L0800: 1, L0768: 1, L0766: 1, L0386: 1, L0775: 1, L4501: 1, L0665: 1, H0519: 1, H0648: 1, H0521: 1, S0406: 1, H0576: 1, L0749: 1, L0779: 1, L0780: 1, L0752: 1, L0731: 1, L0757: 1, L0758: 1, L0591: 1, H0423: 1 and H0422: 1. AR033: 8, AR104: 8, AR055: 4, AR061: 3, AR089: 2, AR039: 2, AR060: 2, AR052: 2, AR053: 1, AR096: 1 L0758: 4, L0769: 3, L0803: 3, H0295: 2, S0007: 2, L0438: 2, L0740: 2, L0757: 2, S0418: 1, S0420: 1, L0021: 1, H0706: 1, H0052: 1, S0250: 1, H0328: 1, H0213: 1, S0366: 1, L0662: 1, L0774: 1, L0659: 1, L0790: 1, L0664: 1, S0027: 1, L0741: 1, L0743: 1, L0756: 1, L0777: 1 and L0731: 1.		80-98
569	HOHBV41	859036	579	351 - 689	1984	Val-2 to Arg-12, His-21 to Ile-43.	AR096: 1, AR033: 1, AR061: 1, AR055: 0, AR060: 0, AR089: 0,	4p15.2	71-95

570	HHFKC41	859165	580	118 - 1341	1985	Met-1 to Gly-6, Arg-8 to Ala-19, Ser-32 to Ala-46, Ala-57 to Pro-76, Ala-78 to Arg-88, Thr-95 to Ser-104, Lys-126 to Glu-138.	AR039: 0, AR052: 0, AR053: 0 H0251: 1 and S0250: 1.	AR096: 2, AR033: 1, AR104: 1, AR060: 1, AR053: 1, AR052: 1, AR055: 1, AR061: 0, AR039: 0 L0745: 8, S0422: 5, H0615: 3, L0759: 3, H0543: 3, L0783: 2, L0666: 2, S0126: 2, L0604: 2, S0242: 2, H0170: 1, H0661: 1, S0418: 1, S0360: 1, H0619: 1, H0550: 1, H0123: 1, H0266: 1, S0312: 1, S0003: 1, H0551: 1, H0413: 1, T0042: 1, H0494: 1, S0440: 1, H0529: 1, L0771: 1, L0773: 1, L0803: 1, L0657: 1, H0690: 1, H0659: 1, L0754: 1, L0731: 1, L0757: 1, H0216: 1, S0276: 1 and S0196: 1.			352-378, 232-252, 307-324, 271-287
571	HMWGG4 4	859189	581	108 - 1124	1986	Gln-40 to Glu-45, Glu-96 to Glu-102, Asn-256 to Thr-266, Lys-311 to Ser-322.		AR089: 75, AR052: 35, AR060: 31, AR033: 29, AR053: 28, AR104: 20, AR061: 19, AR096: 16, AR055: 16, AR039: 14			1-28, 184-201, 157-173

L0803: 13, L0748: 12, L0752: 8, L0744: 7, H0124: 6, L0770: 6, H0733: 5, H0169: 5, H0674: 5, L0455: 5, L0766: 5, L0804: 5, L0805: 5, L0776: 5, L0740: 5, L0745: 5, L0750: 5, L0777: 5, L0809: 4, S0442: 3, H0032: 3, L0774: 3, L0742: 3, L0757: 3, L0759: 3, S0436: 3, S0114: 2, S0360: 2, S0222: 2, L0622: 2, H0545: 2, H0673: 2, L0598: 2, L0794: 2, L0775: 2, L0375: 2, L0651: 2, L0659: 2, L0526: 2, L0783: 2, L0528: 2, H0547: 2, S0126: 2, S0330: 2, S0380: 2, H0696: 2, S0188: 2, L0751: 2, L0747: 2, L0755: 2, L0605: 2, H0624: 1, H0265: 1, S0040: 1, S0218: 1, H0650: 1, H0341: 1, H0638: 1, H0580: 1, H0728: 1, H0734: 1, S0476: 1, S6014: 1, H0610: 1, H0486: 1, L0586: 1, T0060: 1, H0575: 1, T0082: 1, H0004: 1, H0581: 1, H0057: 1, H0014: 1, H0083: 1, H0188:

572	HOEMM2 3	859190	582	131 - 496	1987	Tyr-10 to Asp-15, Asp-64 to Gly-72, Gln-74 to Lys-85, Gly-110 to Arg-122.	15-41, 41-63, 86-109
						1, H0687: 1, S0003: 1, H0328: 1, T0023: 1, L0055: 1, H0165: 1, S0364: 1, S0366: 1, S0036: 1, L0564: 1, H0494: 1, L0475: 1, S0016: 1, H0560: 1, S0294: 1, S0438: 1, S0440: 1, H0509: 1, H0131: 1, S0150: 1, H0641: 1, S0422: 1, S0002: 1, L0520: 1, L0371: 1, L0796: 1, L0637: 1, L0761: 1, L0546: 1, L0800: 1, L0771: 1, L0648: 1, L0521: 1, L0363: 1, L0376: 1, L0378: 1, L0653: 1, L0384: 1, L0530: 1, L0787: 1, L0788: 1, S0053: 1, S0148: 1, H0689: 1, H0659: 1, S0378: 1, S0152: 1, H0522: 1, H0704: 1, S0044: 1, H0478: 1, H0727: 1, S3014: 1, L0756: 1, L0731: 1, L0758: 1, S0031: 1, S0434: 1 and S0276: 1. AR096: 2, AR104: 2, AR055: 1, AR089: 1, AR060: 1, AR033: 0, AR061: 0, AR052: 0 S0126: 4, H0271: 1, H0164: 1, S0028: 1 and	

573	HTXPN78	859200	583	31 - 873	1988	Thr-116 to Gly-122, Lys-142 to Pro-150, Pro-164 to Ala-172, Glu-184 to Asn-189.	S0260: 1. AR052: 4, AR055: 3, AR053: 3, AR060: 2, AR033: 2, AR089: 2, AR061: 2, AR096: 1, AR104: 1, AR039: 0 S0126: 3, H0658: 3, H0556: 2, H0576: 2, L0600: 2, H0265: 1, S0360: 1, H0592: 1, H0051: 1, H0031: 1, H0135: 1, H0652: 1, L0641: 1, L0803: 1, L0375: 1, L0666: 1, H0547: 1, S0031: 1 and S0026: 1.			48-65, 121-137, 73-89
574	HFPGR87	859201	584	775 - 1125	1989	Glu-9 to Gly-14, Gln-75 to Val-81, Ser-94 to Gly-116.	AR033: 13, AR052: 6, AR104: 5, AR060: 4, AR055: 4, AR061: 4, AR053: 3, AR089: 3, AR096: 2, AR039: 1 L0748: 7, L0747: 6, L0805: 5, L0803: 4, L0776: 4, L0439: 4, L0757: 4, H0549: 3, L0794: 3, L0809: 3, L0750: 3, L0777: 3, H0624: 2, H0635: 2, H0012: 2, L0775: 2, L0744: 2, L0731: 2, S0276: 2, H0556: 1, S0114: 1, H0650: 1, H0255: 1, S0360: 1, L0394: 1.	22q13.1	103050, 103050, 124030, 124030, 138981, 182380, 188826, 190040, 190040, 190040	51-73

575	HE8PR67	859233	585	98 - 1402	1990			252-280, 319-342, 202-222, 157-173, 385-401, 174-190
					Pro-12 to Lys-33, Asn-41 to His-46, Pro-48 to Ser-58, Gly-71 to Asp-78, Ala-94 to Gly-102, Ser-133 to Ser-140, Arg-197 to Lys-202.	1, S0222: 1, H0441: 1, H0392: 1, H0333: 1, S0474: 1, H0052: 1, H0194: 1, H0235: 1, H0597: 1, H0231: 1, H0546: 1, H0150: 1, H0620: 1, H0328: 1, H0615: 1, H0674: 1, H0068: 1, H0135: 1, H0163: 1, L0497: 1, L0804: 1, L0661: 1, L0543: 1, L0791: 1, L5286: 1, H0144: 1, S0126: 1, H0696: 1, L0743: 1, L0749: 1, L0780: 1, L0752: 1, L0758: 1, S0031: 1, L0591: 1 and L0608: 1.	AR052: 8, AR055: 8, AR053: 6, AR096: 6, AR089: 5, AR060: 4, AR033: 4, AR039: 4, AR061: 3, AR104: 3, L0758: 4, S0358: 3, L0766: 3, H0038: 2, L0748: 2, L0754: 2, L0756: 2, L0759: 2, H0265: 1, H0223: 1, H0222: 1, H0159: 1, L0002: 1, S0116: 1, H0586: 1, T0040: 1, H0013: 1, H0052: 1, T0110: 1, L0157: 1, H0050: 1, H0266: 1, S0250: 1, S0364: 1, H0616:	

576	HDTDZ65	859250	586	35 - 2344	1991			
						Leu-55 to Phe-61, Arg-105 to Cys-111, Leu-152 to Glu-158, Glu-174 to Leu-187, Tyr-213 to Pro-223, Ala-246 to Asp-256, Leu-274 to Cys-283, Glu-297 to Tyr-302, Pro-322 to Leu-327, Asp-333 to Val-343, Thr-375 to Pro-382, Asp-403 to Ser-415, Thr-490 to Lys-496, Pro-531 to Asp-541, Arg-545 to Gly-551, Asp-582 to Ile-588, Asn-683 to Thr-713.	AR089: 5, AR052: 2, AR060: 2, AR096: 2, AR055: 2, AR033: 1, AR039: 1, AR061: 1, AR104: 0, AR053: 0 S0192: 18, H0521: 7, L0659: 6, S0126: 6, L0744: 6, H0486: 5, L0666: 5, S0022: 4, L0438: 4, L0754: 4, S0194: 4, S0045: 3, L0662: 3, S0330: 3, L0758: 3, S0040: 2, H0661: 2, H0662: 2, S0132: 2, S0476: 2, H0392: 2, H0013: 2, H0575: 2, H0581: 2, S0250: 2, H0622: 2, H0553: 2, H0628: 2, H0591: 2, H0551: 2, H0623: 2, H0494: 2, S0002: 2, S0426: 2, L0771: 2, L0803: 2, L0527: 2, L0664: 2, L0665: 2, H0144: 2, S0027: 2, S0028: 2,	1, H0264: 1, H0509: 1, H0641: 1, L0646: 1, L0773: 1, L0662: 1, L0776: 1, L0655: 1, L0659: 1, L0809: 1, L0666: 1, L0664: 1, S0126: 1, S0380: 1, H0521: 1, L0779: 1, L0593: 1, S0242: 1 and L0697: 1.	727-762, 5-21, 556-572

426

S0206: 2, L0740: 2, L0751:
2, H0595: 2, L0596: 2,
H0506: 2, H0170: 1, T0049:
1, S0212: 1, H0638: 1,
S0420: 1, S0442: 1, S0376:
1, S0468: 1, S0046: 1,
S0278: 1, H0369: 1, H0592:
1, H0586: 1, S0010: 1,
H0705: 1, H0310: 1, H0046:
1, T0010: 1, H0375: 1,
H0266: 1, H0687: 1, S0214:
1, H0039: 1, L0483: 1,
H0030: 1, H0031: 1, H0032:
1, S0366: 1, H0598: 1,
H0038: 1, H0380: 1, H0268:
1, H0413: 1, H0056: 1,
S0440: 1, H0652: 1, S0142:
1, S0344: 1, L0770: 1,
L0638: 1, L0646: 1, L0649:
1, L0381: 1, L0806: 1,
L0657: 1, L0658: 1, L0518:
1, L0809: 1, L0789: 1,
H0682: 1, S0332: 1, H0696:
1, S0404: 1, S0406: 1,
H0555: 1, H0627: 1, S0037:
1, S3014: 1, L0747: 1,
L0755: 1, L0757: 1, L0588:
1, L0591: 1, S0026: 1,
H0653: 1, H0665: 1 and
S0196: 1.

| 577 | HWAEV63 | 859588 | 587 | 93 - 440 | 1992 | Met-7 to Asp-22. | AR033: 5, AR096: 3, AR060: 3, AR052: 3, AR089: 3, AR053: 2, AR104: 1, AR061: 1, AR055: 1, AR039: 0 L0439: 6, L0659: 4, L0740: 4, L0752: 4, S0376: 3, L0731: 3, H0052: 2, L0471: 2, S0051: 2, H0428: 2, H0090: 2, L0803: 2, L0809: 2, H0423: 2, S0452: 2, H0624: 1, H0170: 1, H0663: 1, S0442: 1, S0045: 1, S0222: 1, H0331: 1, S0280: 1, L0021: 1, H0575: 1, H0004: 1, H0581: 1, H0457: 1, H0014: 1, S0388: 1, T0010: 1, H0083: 1, S6028: 1, S0318: 1, S0003: 1, H0688: 1, H0031: 1, H0553: 1, H0628: 1, L0055: 1, H0591: 1, H0038: 1, H0040: 1, H0268: 1, L0564: 1, S0210: 1, S0422: 1, L0598: 1, L0768: 1, L0794: 1, L0766: 1, L0774: 1, L0775: 1, L0518: 1, L0666: 1, L0664: 1, H0547: 1, H0659: 1, H0539: 1, S0380: 1, H0478: 1, H0479: 1, | 46-74, 77-98 |

| 578 | HOHAV17 | 859636 | 588 | 13 - 318 | 1993 | | L0779: 1, L0777: 1, L0755: 1, L0592: 1, L0599: 1, S0194: 1, S0276: 1, H0543: 1, S0424: 1 and H0506: 1.
 AR052: 1, AR104: 1,
 AR089: 1, AR061: 1,
 AR055: 1, AR039: 0,
 AR033: 0, AR096: 0,
 AR060: 0, AR053: 0
 S0250: 1 and H0547: 1. | 62-94 |
| 579 | HNTAW95 | 859688 | 589 | 198 - 875 | 1994 | Cys-179 to Ser-189, Ala-216 to Tyr-223. | AR053: 2, AR096: 1,
 AR055: 1, AR033: 1,
 AR061: 1, AR089: 0,
 AR060: 0, AR104: 0,
 AR052: 0
 H0046: 20, H0529: 3, L0439: 3, H0624: 2, H0038: 2, H0547: 2, L0588: 2, H0556: 1, H0484: 1, H0450: 1, H0619: 1, H0549: 1, H0550: 1, H0497: 1, T0040: 1, H0013: 1, H0599: 1, H0052: 1, H0050: 1, H0012: 1, H0551: 1, H0264: 1, H0494: 1, H0509: 1, H0538: 1, L0654: 1, H0520: 1, H0519: 1, S0126: 1, S0152: 1, S0332: 1, S0013: 1, S0027: 1, L0740: 1, H0445: | 143-176, 66-93, 22-50, 106-125 |

| 580 | HMCFL79 | 859704 | 590 | 1309 - 824 | 1995 | 1, L0592: 1, L0593: 1, L0595: 1 and H0506: 1. AR055: 11, AR053: 10, AR052: 8, AR096: 7, AR060: 7, AR089: 6, AR033: 6, AR061: 5, AR039: 5, AR104: 3 H0521: 7, L0748: 4, H0656: 3, H0586: 2, H0264: 2, L0740: 2, S0436: 2, H0542: 2, H0171: 1, T0002: 1, H0222: 1, S0040: 1, H0294: 1, S0134: 1, H0583: 1, S0212: 1, S0356: 1, S0045: 1, H0069: 1, H0318: 1, H0421: 1, H0052: 1, H0081: 1, H0050: 1, H0284: 1, H0428: 1, S0036: 1, H0551: 1, H0494: 1, S0144: 1, S0344: 1, L0807: 1, L0790: 1, H0547: 1, H0435: 1, H0539: 1, S0152: 1, S0028: 1, S0032: 1, L0750: 1, L0777: 1, L0759: 1, H0445: 1 and H0422: 1. | 33-70, 78-99, 7-24, 57-73, 117-133 |
| 581 | HNTCT36 | 859756 | 591 | 103 - 630 | 1996 | Met-1 to Lys-17, Asn-66 to Asn-95, Thr-100 to Tyr-106. AR096: 5, AR089: 4, AR033: 4, AR060: 3, AR052: 1, AR061: 1, AR104: 0, AR053: 0 | 153-169 |

No.											
582	HTPDM61	859769	592	45 - 485	1997	Pro-30 to Arg-35, Glu-41 to Glu-51, Ser-54 to Trp-62, Gly-69 to Trp-77.	AR033: 10, AR055: 10, AR052: 8, AR089: 7, AR060: 7, AR053: 7, AR061: 6, AR096: 5, AR104: 3, AR039: 1 L0766: 3, L0731: 3, S0051: 2, L0769: 2, L0662: 2, L0768: 2, L0747: 2, H0140: 1, H0656: 1, S0418: 1, S0444: 1, H0013: 1, L0021: 1, H0046: 1, H0439: 1, H0615: 1, H0039: 1, H0551: 1, S0438: 1, S0144: 1, L0763: 1, L0372: 1, L0794: 1, L0805: 1, L0783: 1, L0809: 1, L0647: 1, L0788: 1, L0792: 1, L0663: 1, L0664: 1, H0691: 1, H0593: 1, L0750: 1 and L0758: 1.	H0519: 2, H0156: 1, L0666: 1, L0665: 1, H0520: 1, L0758: 1 and L0759: 1.			74-97, 3-19
583	HTFOH87	859792	593	389 - 745	1998	Pro-10 to Arg-15.	AR039: 1, AR096: 1, AR033: 1, AR061: 1, AR060: 0, AR089: 0, AR052: 0, AR055: 0, AR104: 0 L0769: 5, S0045: 2.		22q13.2-q13.31	188826, 250100, 250800, 250800	55-81, 36-52, 84-100

| 584 | HWBDQ32 | 859796 | 594 | 284 - 760 | 1999 | Leu-10 to Ser-20, Ala-49 to Gly-55, Ala-69 to Ala-74. | L0773: 2, L0775: 2, L0783: 2, L0809: 2, H0657: 1, H0341: 1, H0254: 1, H0255: 1, S0360: 1, H0208: 1, H0550: 1, H0052: 1, H0123: 1, H0673: 1, H0412: 1, H0413: 1, L0640: 1, L0763: 1, L0768: 1, L0794: 1, L0661: 1, L0665: 1, H0691: 1, H0690: 1, S0378: 1, H0521: 1, L0750: 1, L0777: 1, L0759: 1, S0436: 1, L0366: 1, S0242: 1 and S0424: 1. | 99-116 |
| | | | | | | | AR096: 3, AR052: 3, AR053: 2, AR089: 2, AR033: 1, AR061: 1, AR060: 1, AR055: 1, AR104: 1, AR039: 0 L0745: 7, H0486: 4, L0764: 3, L0774: 3, L0779: 3, H0543: 3, H0130: 2, L0768: 2, L0766: 2, L0803: 2, L0542: 2, H0666: 2, H0672: 2, L0746: 2, L0755: 2, L0758: 2, L0596: 2, T0049: 1, H0657: 1, H0662: 1, S0358: 1, S0360: 1, H0580: 1, S0046: 1, S0222: 1, H0586: 1, H0013: 1, | |

| 585 | HCHMO53 | 859797 | 595 | 199 - 660 | 2000 | Arg-7 to Ala-14, Phe-113 to Arg-118, Pro-124 to His-129, Glu-145 to Ala-153. | AR060: 16, AR052: 8, AR053: 7, AR033: 6, AR104: 6, AR089: 6, AR039: 5, AR061: 5, AR096: 4, AR055: 2 L0776: 8, L0731: 8, S0438: 6, L0752: 6, H0677: 6, S0410: 5, S0440: 5, L0764: 5, L0749: 5, T0049: 4, S0132: 4, L0766: 4, H0648: 4, L0759: 4, H0355: 3, L0519: 3, H0684: 3, L0748: 3, L0747: 3, L0757: | L0021: 1, H0251: 1, H0266: 1, S0003: 1, S0214: 1, H0428: 1, H0535: 1, H0644: 1, H0674: 1, H0598: 1, H0038: 1, H0616: 1, H0268: 1, H0509: 1, S0002: 1, L0371: 1, L0770: 1, L0637: 1, L0372: 1, L0662: 1, L0550: 1, L0775: 1, L0375: 1, L0523: 1, L0526: 1, L0809: 1, L0663: 1, S0126: 1, H0435: 1, H0670: 1, H0539: 1, S0380: 1, H0522: 1, S0044: 1, H0345: 1, L0439: 1, L0740: 1, L0754: 1, L0750: 1, L0759: 1, H0445: 1 and L0603: 1. | 86-102, 54-70 |

3, H0449: 2, S0358: 2,
S0376: 2, S0444: 2, H0392:
2, T0006: 2, H0477: 2,
L0775: 2, L0806: 2, S0152:
2, H0436: 2, L0751: 2,
L0750: 2, L0758: 2, S0436:
2, H0423: 2, H0624: 1,
H0556: 1, H0157: 1, H0295:
1, H0294: 1, S0114: 1,
H0657: 1, H0656: 1, H0484:
1, H0483: 1, S0356: 1,
S0360: 1, S0408: 1, H0637:
1, S0007: 1, S0045: 1,
H0391: 1, H0586: 1, H0497:
1, H0331: 1, H0485: 1,
T0109: 1, T0048: 1, S0474:
1, L0040: 1, H0046: 1,
S0051: 1, H0083: 1, H0606:
1, H0169: 1, H0316: 1,
H0268: 1, H0412: 1, H0413:
1, T0042: 1, S0464: 1,
H0633: 1, L0763: 1, L0770:
1, L0769: 1, L0638: 1,
L0771: 1, L0648: 1, L5564:
1, L0381: 1, L0774: 1,
L0378: 1, L0655: 1, L0659:
1, L0809: 1, L0788: 1,
L0532: 1, H0682: 1, H0659:
1, S0328: 1, S0380: 1,
S0350: 1, H0696: 1, S0406:

586	HNHMMC08	859848	596	10 - 1251	2001	1, H0478: 1, H0479: 1, L0753: 1, S0434: 1, S0394: 1, L0592: 1, L0608: 1, H0668: 1, S0026: 1 and H0422: 1. AR055: 3, AR053: 2, AR060: 2, AR033: 2, AR061: 1, AR052: 1, AR096: 1, AR089: 1, AR104: 0, AR039: 0 S0278: 2, S0218: 1, S0045: 1 and S0216: 1.			383-406, 124-149, 8-35, 281-302, 349-368, 151-171, 85-104, 44-62, 227-245, 324-340, 29-45, 189-205
587	HDPFH27	859875	597	95 - 1933	2002	Ser-27 to Pro-35, Thr-87 to Ile-99, Pro-106 to Lys-112, Glu-119 to Ser-130, Ser-182 to Val-187, Lys-194 to Tyr-204, Lys-295 to Val-300, Lys-384 to Glu-390, Thr-512 to Thr-526, Ser-530 to Glu-537, Gln-556 to Lys-562, Lys-593 to Leu-601.	AR060: 20, AR039: 19, AR055: 13, AR033: 13, AR053: 10, AR052: 9, AR089: 8, AR096: 7, AR104: 7, AR061: 4 H0521: 2	Xq25-q26	300037, 300076, 300123, 301201, 301845, 301900, 304340, 307150, 307700, 308000, 308000, 308230,	65-84, 302-318, 571-587, 130-146, 366-382, 492-508

588	HE9QX59	859884	598	97 - 978	2003			
					Ser-49 to Ser-66, Asp-152 to Lys-160, Gly-186 to Asn-192, Arg-200 to Ser-205, Pro-223 to His-229, Gly-240 to Thr-250.	AR061: 14, AR052: 5, AR055: 3, AR033: 2, AR089: 2, AR060: 1, AR053: 1, AR096: 0, AR039: 0, AR104: 0 H0144: 1 and L0755: 1.	17q22-q24	109270, 109270, 109270, 109270, 109270, 115660, 120150, 120150, 120150, 139250, 148065, 148080, 148500, 150200, 154275, 162100, 170500, 170500, 170500, 171190, 176960, 182452, 185800, 221820,	308240, 309555, 310490, 312000, 313350, 313850	269-286, 163-179, 103-119

| 589 | HNFBU66 | 859891 | 599 | 953 - 537 | 2004 | Thr-26 to Lys-32, Asn-98 to Pro-105, Arg-133 to Thr-139. | AR089: 15, AR096: 15, AR052: 14, AR053: 12, AR060: 12, AR055: 11, AR104: 11, AR039: 10, AR033: 9, AR061: 6 H0171: 2, H0624: 1, S0222: 1, H0271: 1, S0390: 1, S0028: 1, L0786: 1 and S0031: 1. | 230200, 249000, 253250, 600525, 600852, 601844 | 71-88 |
| 590 | HLDQW16 | 859895 | 600 | 906 - 1214 | 2005 | Thr-33 to Thr-40, Lys-86 to Lys-103. | AR039: 9, AR096: 8, AR053: 8, AR089: 7, AR052: 6, AR033: 5, AR055: 4, AR104: 4, AR060: 4, AR061: 2 L0766: 6, L0770: 3, H0632: 2, H0013: 2, L0483: 2, L0775: 2, L0663: 2, H0521: 2, L0759: 2, L0362: 2, S0354: 1, S0358: 1, H0486: 1, H0003: 1, H0318: 1, H0544: 1, H0457: 1, H0510: 1, H0428: 1, L0371: 1, L0521: 1, L0512: 1, | | 51-68, 4-21 |

| 591 | HTLGS48 | 859918 | 601 | 726 - 1436 | 2006 | Met-1 to Trp-10, Gln-12 to Thr-37. | L0783: 1, L0664: 1, H0593: 1, H0365: 1, H0659: 1, H0658: 1, H0672: 1, S0378: 1, L0756: 1, L0758: 1, H0445: 1, L0480: 1 and L0599: 1. AR055: 8, AR033: 6, AR060: 5, AR089: 5, AR104: 4, AR039: 4, AR052: 4, AR053: 4, AR061: 4, AR096: 4 H0618: 7, L0747: 6, L0439: 5, H0617: 3, L0766: 3, L0438: 3, H0580: 2, H0328: 2, L0783: 2, H0694: 2, S0434: 2, H0717: 1, S0442: 1, S0360: 1, S0408: 1, H0208: 1, S0045: 1, H0261: 1, H0550: 1, H0586: 1, H0333: 1, H0559: 1, H0486: 1, H0253: 1, T0048: 1, H0546: 1, T0003: 1, H0024: 1, H0373: 1, H0399: 1, H0292: 1, H0135: 1, L5565: 1, L0761: 1, L0630: 1, L0767: 1, L0375: 1, L0653: 1, L0655: 1, L0807: 1, L0787: 1, H0547: 1, H0672: 1, H0576: 1, L0748: 1, L0786: 1, L0758: 1, | 43-64, 199-218, 119-135 |

592	HNHDY54	859973	602	235 - 546	2007		70-96
						L0759: 1, S0011: 1 and H0423: 1. AR055: 9, AR060: 6, AR033: 5, AR061: 5, AR052: 4, AR039: 3, AR089: 3, AR096: 3, AR053: 3, AR104: 0, S0053: 2	
593	HAPPS75	860023	603	1221 - 190	2008	Arg-55 to Gly-61.	255-271, 107-123
						AR039: 38, AR033: 23, AR096: 21, AR104: 20, AR052: 18, AR089: 17, AR053: 15, AR061: 14, AR055: 14, AR060: 13 H0581: 3, H0522: 3, L0747: 3, H0662: 2, H0553: 2, H0641: 2, S0053: 2, H0689: 2, H0521: 2, L0748: 2, L0731: 2, L0759: 2, H0543: 2, H0294: 1, H0657: 1, H0656: 1, S0418: 1, S0358: 1, H0208: 1, H0619: 1, H0586: 1, H0587: 1, H0427: 1, H0599: 1, H0575: 1, H0052: 1, H0545: 1, H0009: 1, H0081: 1, H0510: 1, H0266: 1, H0212: 1, H0211: 1, H0090: 1, H0100: 1, T0042: 1, H0494: 1, H0646: 1, L0770: 1, L0659:	

594	HWLELA7	860167	222 - 566	2009	Met-1 to Arg-6, Pro-24 to Ile-30.	1, H0519: 1, S0037: 1, L0741: 1, L0750: 1, L0777: 1, H0445: 1, L0596: 1 and H0542: 1. AR096: 1, AR060: 1, AR055: 1, AR089: 1, AR104: 1, AR061: 1, AR033: 1, AR039: 0, AR052: 0, AR053: 0 S0354: 1 and S0428: 1.			88-105, 35-51
595	HNGJG75	860381	183 - 662	2010	Ser-13 to His-18, Phe-90 to Asp-100, Ser-118 to Thr-143.	AR055: 6, AR060: 4, AR052: 3, AR089: 3, AR033: 3, AR061: 3, AR053: 2, AR104: 2, AR039: 2, AR096: 1 S0052: 1			36-56
596	HKAJU40	860461	89 - 676	2011	Gln-96 to Glu-102, Asn-108 to Val-113, Gly-154 to Tyr-159.	AR052: 9, AR061: 8, AR053: 7, AR060: 6, AR039: 5, AR033: 5, AR096: 5, AR055: 5, AR089: 4, AR104: 4 H0038: 3, H0265: 2, H0341: 2, H0543: 2, H0556: 1, S0116: 1, S0212: 1, H0664: 1, S0376: 1, H0393: 1, H0370: 1, H0592: 1, H0013: 1, L2250: 1, H0544: 1, H0046: 1, H0012: 1, H0083: 1, S0214: 1, H0031:	17p13.1	191170, 191170	174-190, 7-23, 70-86

| 597 | HY ABL83 | 860565 | 607 | 1473 - 1012 | 2012 | Val-43 to Gly-48, Leu-118 to Leu-128. | AR089: 3, AR033: 2, AR096: 2, AR039: 2, AR060: 2, AR061: 1, AR055: 0, AR053: 0, AR052: 0, AR104: 0 L0754: 5, L0744: 4, L0659: 3, L0439: 3, L0747: 3, L0777: 3, S6024: 2, H0661: 2, H0645: 2, L0794: 2, L0766: 2, L0803: 2, H0144: 2, L0748: 2, L0759: 2, L0605: 2, H0556: 1, H0583: 1, S0212: 1, H0663: 1, S0354: 1, H0619: 1, S0222: 1, H0441: 1, H0586: 1, H0333: 1, L0021: 1, H0575: 1, H0590: 1, H0318: 1, H0050: 1, L0163: 1, H0510: 1, H0266: 1, H0622: 1, H0030: 1, H0644: 1, H0032: 1, H0135: 1, H0551: 1, T0041: 1, H0509: 1, S0150: 1, H0647: 1, H0646: | 1, S0364: 1, H0494: 1, S0440: 1, H0509: 1, H0633: 1, S0144: 1, H0529: 1, L0372: 1, L0766: 1, S0126: 1, L0602: 1, S0152: 1, H0522: 1, H0576: 1, L0779: 1, H0665: 1 and H0216: 1. | 57-86, 20-43, 127-145 |

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598	HKADF82	860617	608	234-536	2013	Glu-6 to Glu-16.		72-89
							1, S0344: 1, S0426: 1, L0598: 1, H0529: 1, L0762: 1, L0796: 1, L0372: 1, L0804: 1, L0774: 1, L0805: 1, L0656: 1, L0809: 1, L0666: 1, L0438: 1, H0547: 1, H0519: 1, H0683: 1, H0435: 1, H0659: 1, H0660: 1, H0696: 1, S0028: 1, L0742: 1, L0745: 1, L0746: 1, L0752: 1, L0757: 1, L0480: 1, L0591: 1, H0653: 1, S0192: 1, H0423: 1 and H0422: 1.	AR060: 2, AR053: 1, AR061: 1, AR033: 0, AR055: 0, AR096: 0, AR039: 0 H0144: 3, S0007: 2, H0550: 2, H0494: 2, L0794: 2, L0633: 2, L0666: 2, L0665: 2, S0330: 2, H0478: 2, S0040: 1, H0661: 1, H0637: 1, H0549: 1, H0431: 1, S0280: 1, H0575: 1, H0051: 1, H0355: 1, H0594: 1, H0288: 1, L0483: 1, H0644: 1, H0038: 1, H0616: 1, H0509: 1, H0517: 1, L0662: 1, L0791: 1, L0663:	

							1, L0664: 1, H0703: 1, L0438: 1, H0547: 1, H0711: 1, H0518: 1, S0044: 1, H0214: 1, L0439: 1, L0751: 1, L0731: 1 and H0423: 1.	
599	HNGEK43	860646	609	29 - 430	2014	Pro-16 to Cys-28, Val-79 to Gly-84.	AR061: 2, AR055: 2, AR089: 1, AR096: 1, AR033: 1, AR053: 1, AR060: 1, AR039: 0, AR104: 0 S0052: 2 and H0393: 1.	91-107
600	HTAJS93	860849	610	36 - 1160	2015	Tyr-42 to Gly-48, Ser-62 to Arg-83, Asp-137 to Pro-148, Ser-201 to Arg-207.	AR096: 31, AR089: 24, AR033: 14, AR060: 14, AR052: 13, AR053: 13, AR039: 13, AR055: 10, AR061: 6, AR104: 5 L0731: 27, L0662: 10, S0360: 8, L0666: 8, L0659: 7, L0758: 7, S0358: 6, S0003: 6, L0803: 6, L0748: 6, L0747: 6, L0779: 6, L0752: 6, S0132: 5, L0664: 5, L0744: 5, L0754: 5, S0040: 4, H0662: 4, H0411: 4, H0251: 4, H0597: 4, L0471: 4, H0024: 4, S0022: 4, L0809: 4, L0663: 4, L0439: 4, L0749: 4, L0756: 4, L0362: 4, L0002: 3,	344-371, 169-200, 313-340, 275-302, 15-42, 146-167, 119-135, 1-17, 210-227, 237-253

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H0600: 3, H0599: 3, S0250: 3, H0039: 3, H0622: 3, H0616: 3, L0805: 3, S0126: 3, H0521: 3, L0759: 3, H0170: 2, S0212: 2, H0255: 2, S0418: 2, L0717: 2, S0222: 2, H0592: 2, H0486: 2, H0590: 2, H0196: 2, H0231: 2, H0373: 2, L0483: 2, L0564: 2, S0002: 2, L0772: 2, L0641: 2, L0764: 2, L0806: 2, L0776: 2, L0384: 2, H0144: 2, S0044: 2, H0555: 2, H0595: 2, L0592: 2, L0599: 2, L0603: 2, S0194: 2, H0624: 1, S0001: 1, H0663: 1, H0664: 1, H0638: 1, S0376: 1, H0637: 1, H0580: 1, H0393: 1, H0437: 1, H0453: 1, H0370: 1, H0586: 1, H0331: 1, H0574: 1, H0559: 1, H0485: 1, H0013: 1, H0635: 1, H0427: 1, H0118: 1, H0575: 1, H0036: 1, H0253: 1, L0105: 1, H0318: 1, H0234: 1, H0546: 1, H0050: 1, H0105: 1, S0388: 1, H0271: 1, S0318: 1, H0252: 1, H0428: 1, H0553: 1,

601	HE9PJ48	861223	611	131 - 1549	2016			
					Thr-9 to Asn-16, Thr-59 to Trp-70, Pro-92 to His-97, Thr-345 to Gly-351, Tyr-409 to Pro-426, Arg-433 to Val-466.	AR033: 4, AR061: 4, AR060: 2, AR104: 2, AR089: 2, AR053: 1, AR055: 1, AR039: 0, AR052: 0 H0556: 6, L0438: 6, L0758: 6, L0766: 5, L0666: 5, L0747: 5, L0805: 4,	H0644: 1, H0673: 1, S0364: 1, S0366: 1, H0591: 1, H0634: 1, H0412: 1, H0413: 1, H0100: 1, S0112: 1, T0041: 1, H0494: 1, H0641: 1, H0646: 1, S0208: 1, L0763: 1, L0372: 1, L0771: 1, L0648: 1, L0768: 1, L0364: 1, L0794: 1, L0774: 1, L0379: 1, L0512: 1, L0647: 1, L0788: 1, L0665: 1, S0374: 1, L0438: 1, H0684: 1, H0672: 1, S0330: 1, S0380: 1, S0013: 1, H0579: 1, H0522: 1, S0013: 1, S0146: 1, H0631: 1, S0432: 1, S0037: 1, L0745: 1, L0750: 1, L0777: 1, L0757: 1, H0444: 1, L0596: 1, L0597: 1, L0591: 1, S0011: 1, S0026: 1, S0192: 1, H0422: 1 and H0008: 1.	66-93, 98-125, 374-405, 351-371, 41-58, 217-235, 166-182, 286-302, 318-

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L0748: 4, L0749: 4, L0779: 4, H0543: 4, H0341: 3, H0641: 3, L0769: 3, L0776: 3, L0664: 3, H0547: 3, L0439: 3, L0755: 3, H0638: 2, S0418: 2, T0039: 2, H0123: 2, S0003: 2, H0553: 2, H0068: 2, H0135: 2, H0551: 2, S0144: 2, S0002: 2, L0626: 2, L0794: 2, L0803: 2, L0659: 2, H0144: 2, S0126: 2, H0435: 2, L0777: 2, L0731: 2, L0599: 2, H0542: 2, H0395: 1, H0265: 1, S6024: 1, T0049: 1, H0657: 1, H0419: 1, S0420: 1, S0376: 1, H0431: 1, H0587: 1, H0486: 1, H0013: 1, H0156: 1, H0599: 1, H0575: 1, S0010: 1, S0049: 1, H0196: 1, H0052: 1, H0309: 1, H0545: 1, H0041: 1, H0050: 1, L0163: 1, H0039: 1, H0213: 1, H0644: 1, H0617: 1, H0673: 1, H0169: 1, H0674: 1, H0038: 1, H0040: 1, H0063: 1, H0087: 1, H0379: 1, H0412: 1, H0100: 1, L0351: 1, T0041: 1, L0475: 1,

602	HPRBC95	861227	612	524 - 853	2017		
					Gly-88 to Ser-94, Glu-98 to Tyr-110.	S0440: 1, S0150: 1, H0633: 1, S0210: 1, H0529: 1, L0520: 1, L0763: 1, L0770: 1, L0761: 1, L0772: 1, L0646: 1, L0641: 1, L0764: 1, L0521: 1, L0662: 1, L0775: 1, L0806: 1, L0657: 1, L0783: 1, L0792: 1, L0663: 1, L0665: 1, L0352: 1, H0689: 1, H0684: 1, H0648: 1, H0521: 1, H0522: 1, H0704: 1, S0406: 1, H0187: 1, H0576: 1, S0037: 1, S0028: 1, L0740: 1, L0751: 1, L0752: 1, L0757: 1, L0590: 1, L0485: 1, L0595: 1, H0665: 1, H0136: 1, H0216: 1 and S0424: 1.	AR055: 11, AR033: 9, AR089: 7, AR060: 6, AR104: 6, AR052: 5, AR096: 5, AR053: 5, AR061: 5, AR039: 4, L0439: 4, L0754: 3, L0758: 3, L0809: 2, L0666: 2, L0438: 2, L0757: 2, S0358: 1, S0376: 1, S0360: 1, H0730: 1, H0351: 1, H0411: 1, S0222: 1, T0039: 1, H0581: 1, H0545: 1,
							62-80, 20-39

603	HDPUM54	861242	613	14 - 466	2018	Thr-89 to Gly-97, Ser-100 to Thr-108.	16q12-q13	114835, 132700, 172490, 600968	50-75, 31-52

H0050: 1, S0318: 1, S0334: 1, H0032: 1, L0351: 1, L0763: 1, L0770: 1, L0774: 1, L0775: 1, L0659: 1, L0789: 1, H0365: 1, L0779: 1, L0777: 1, L0755: 1, H0444: 1, S0436: 1 and S0196: 1.

AR096: 3, AR039: 3, AR053: 1, AR052: 1, AR033: 1, AR061: 1, AR089: 1, AR060: 0, AR055: 0
L0754: 12, L0748: 11, H0521: 9, L0770: 5, L0740: 5, L0747: 5, L0756: 5, L0766: 4, H0591: 3, S0002: 3, L0744: 3, H0457: 2, H0428: 2, H0090: 2, L0523: 2, L0654: 2, L0659: 2, L0438: 2, H0435: 2, L0439: 2, H0445: 2, L0599: 2, S0026: 2, H0542: 2, H0556: 1, H0450: 1, S0420: 1, H0586: 1, H0013: 1, S0280: 1, H0421: 1, H0596: 1, H0046: 1, H0123: 1, H0083: 1, H0266: 1, H0553: 1, H0628: 1, L0055: 1, H0316: 1, S0426: 1, L0761: 1,

604	HHFLL92	861294	614	717 - 1103	2019		
							95-112, 38-54
					Ala-24 to Arg-29, Arg-82 to Gln-89.	L0771: 1, L0768: 1, L0803: 1, L0774: 1, L0776: 1, L0655: 1, L0790: 1, L0792: 1, L0666: 1, H0144: 1, H0670: 1, H0518: 1, H0579: 1, L0749: 1, L0779: 1, L0755: 1, L0758: 1, L0759: 1, L0596: 1, S0192: 1, S0194: 1 and S0276: 1.	AR089: 8, AR055: 7, AR060: 6, AR052: 6, AR033: 6, AR061: 5, AR096: 5, AR053: 4, AR039: 3, AR104: 3 L0779: 9, L0483: 6, L0748: 6, H0556: 5, H0264: 5, L0766: 5, L0740: 5, L0750: 5, L0769: 4, L0659: 4, L0663: 4, L0754: 4, L0758: 4, L0593: 4, S0114: 3, H0656: 3, L0717: 3, H0622: 3, H0673: 3, H0436: 3, L0747: 3, L0777: 3, L0731: 3, H0445: 3, L0596: 3, L0718: 3, H0402: 2, S0442: 2, H0619: 2, H0393: 2, S0280: 2, H0081: 2, H0050: 2, H0024: 2, H0271: 2, H0135: 2, L0637: 2, L0768: 2, L0794: 2, L0561:

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2, L0655: 2, L0783: 2,
L0792: 2, H0144: 2, H0547:
2, S0330: 2, S0037: 2,
L0749: 2, L0591: 2, L0608:
2, H0422: 2, H0506: 2,
L0600: 2, H0170: 1, H0686:
1, H0713: 1, S0402: 1,
H0295: 1, H0583: 1, H0650:
1, H0657: 1, H0341: 1,
S0298: 1, S0212: 1, S0282:
1, H0255: 1, H0663: 1,
H0662: 1, S0358: 1, S0376:
1, S0046: 1, H0549: 1,
H0550: 1, S0222: 1, H0442:
1, H0586: 1, H0333: 1,
H0559: 1, L0623: 1, T0109:
1, H0635: 1, L0021: 1,
H0575: 1, H0590: 1, H0581:
1, H0194: 1, H0251: 1,
H0309: 1, H0545: 1, H0009:
1, L0471: 1, H0620: 1,
H0057: 1, H0051: 1, H0083:
1, H0355: 1, H0594: 1,
S0318: 1, H0687: 1, S0250:
1, H0553: 1, H0644: 1,
L0142: 1, H0674: 1, S0364:
1, H0124: 1, H0087: 1,
H0100: 1, T0042: 1, H0494:
1, H0625: 1, S0144: 1,
S0426: 1, L0763: 1, L0770:

605	HMCHK65	861307	615	51 - 563	2020		

1, L0761: 1, L0764: 1, L0662: 1, L0375: 1, L0806: 1, L0776: 1, L0518: 1, L0809: 1, L0788: 1, L0790: 1, L0666: 1, L0665: 1, S0052: 1, S0374: 1, L0438: 1, H0519: 1, H0593: 1, H0689: 1, H0659: 1, H0660: 1, H0651: 1, S0328: 1, H0539: 1, H0518: 1, S0152: 1, S0044: 1, H0576: 1, S0432: 1, H0345: 1, S3012: 1, S0390: 1, S3014: 1, S0027: 1, L0744: 1, L0780: 1, L0759: 1, L0589: 1, L0599: 1, H0667: 1, S0276: 1, H0543: 1, H0423: 1, S0458: 1, UNKWN: 1 and H0352: 1.

AR053: 1, AR060: 1, AR104: 1, AR089: 1, AR055: 1, AR033: 0, AR061: 0, AR096: 0, AR039: 0, AR052: 0 L0766: 6, L0748: 6, L0740: 6, L0776: 4, H0521: 3, S0358: 2, H0266: 2, S0003: 2, S0344: 2, L0638: 2, L0805: 2, L0438: 2, S0380: 2, L0754: 2, L0747:

118-139, 151-167, 93-110, 63-79, 35-51

| 606 | HAIDK89 | 861328 | 616 | 1422 - 2093 | 2021 | Ser-43 to Ala-48, Ser-72 to Leu-78, Ala-100 to Ala-107, Ser-109 to Ile-115, Arg-166 to Asn-171. | AR033: 4, AR060: 3, AR096: 3, AR089: 2, AR039: 1, AR053: 1, AR104: 1, AR061: 1, AR055: 1, AR052: 0 L0438: 7, L0740: 4, H0416: 3, L0803: 3, L0777: 3, S0005: 2, H0544: 2, H0271: 2, H0090: 2, H0038: 2, H0551: 2, S0440: 2, L0766: 2, L0809: 2, H0436: 2, L0748: 2, L0439: 2, L0754: 2, L0758: 2, L0366: 2, H0265: 1, H0556: 1, H0583: 1, H0656: 1, H0341: | 2, L0752: 2, L0755: 2, L0362: 2, H0624: 1, L0005: 1, H0580: 1, S0045: 1, S0046: 1, H0575: 1, S0010: 1, H0553: 1, H0269: 1, T0042: 1, S0150: 1, L0369: 1, L0770: 1, L0761: 1, L0794: 1, L0656: 1, L0787: 1, L0789: 1, L0665: 1, H0670: 1, H0660: 1, S0152: 1, L0439: 1, L0749: 1, L0779: 1, L0777: 1, L0759: 1, H0445: 1, H0343: 1, L0591: 1, S0192: 1 and H0543: 1. | 186-223, 171-188 |

| 607 | HTOHL88 | 861361 | 617 | 1389 - 478 | 2022 | Ser-25 to Gly-48, Phe-83 to Asp-91, Pro-110 to His-123, Lys-134 to Thr-139. | 1, S0360: 1, S0408: 1, S0132: 1, S0476: 1, H0550: 1, S0222: 1, H0632: 1, H0492: 1, H0013: 1, L0021: 1, H0599: 1, S0049: 1, H0123: 1, H0375: 1, H0266: 1, H0622: 1, H0553: 1, H0383: 1, H0135: 1, H0040: 1, H0616: 1, H0087: 1, S0426: 1, L0769: 1, L0641: 1, L0644: 1, L0771: 1, L0773: 1, L0662: 1, L0768: 1, L0655: 1, L0665: 1, H0682: 1, H0696: 1, H0478: 1, L0749: 1, L0780: 1, L0759: 1 and H0422: 1. | AR055: 9, AR033: 6, AR060: 5, AR061: 5, AR052: 4, AR089: 3, AR096: 3, AR053: 2, AR104: 1, AR039: 0 L0603: 4, H0031: 3, S0010: 2, T0010: 2, L0438: 2, H0038: 1, H0616: 1, H0264: 1, S0426: 1, H0539: 1 and L0439: 1. | 7q33 | 180105, 222800 | 257-287, 173-200, 220-241, 88-108, 52-70, 202-218, 1-17, 138-154 |
| 608 | HMEKU54 | 861611 | 618 | 215 - 586 | 2023 | | | AR089: 8, AR055: 6, AR060: 6, AR052: 4, AR061: 4, AR096: 3, | | | 56-83, 86-104 |

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AR033: 3, AR053: 3,
AR039: 1, AR104: 0
L0769: 7, L0754: 7,
H0657: 4, L0764: 4, L0751:
4, S0408: 3, S0222: 3,
H0327: 3, H0046: 3, H0056:
3, L0756: 3, L0752: 3,
S0282: 2, S0356: 2, S0444:
2, H0580: 2, H0250: 2,
H0622: 2, H0625: 2, L0803:
2, L0666: 2, H0648: 2,
H0672: 2, S0380: 2, S0146:
2, L0745: 2, L0747: 2,
L0777: 2, L0731: 2, L0600:
2, H0556: 1, H0740: 1,
H0305: 1, H0125: 1, S0410:
1, H0637: 1, S0476: 1,
H0393: 1, H0586: 1, H0643:
1, H0486: 1, H0013: 1,
H0635: 1, H0599: 1, H0575:
1, S0346: 1, H0318: 1,
S0474: 1, H0052: 1, H0024:
1, H0266: 1, H0271: 1,
H0188: 1, H0286: 1, H0615:
1, H0124: 1, H0135: 1,
H0634: 1, H0264: 1, T0042:
1, H0132: 1, H0641: 1,
H0652: 1, S0422: 1, L0639:
1, L0771: 1, L0773: 1,
L0662: 1, L0766: 1, L0774:

609	HOQBR51	861620	619	613 - 1017	2024	Gly-35 to Arg-41, Lys-51 to Phe-62, Pro-89 to Gln-94.	1, L0776: 1, L0655: 1, L0659: 1, L0809: 1, L0367: 1, H0547: 1, H0670: 1, H0521: 1, H0696: 1, S0404: 1, S0406: 1, L0748: 1, L0740: 1, L0749: 1, L0779: 1, L0755: 1, L0759: 1, S0434: 1, S0026: 1, H0653: 1, H0667: 1, S0242: 1, S0412: 1, H0506: 1 and : 1.	
							AR039: 51, AR104: 25, AR033: 23, AR096: 17, AR055: 17, AR053: 14, AR089: 14, AR052: 13, AR060: 12, AR061: 8 L0592: 3, H0592: 2, L0769: 2, L0657: 2, L0742: 2, L0749: 2, L0731: 2, L0758: 2, L0759: 2, S0010: 1, H0150: 1, H0009: 1, H0290: 1, H0644: 1, S0038: 1, H0494: 1, H0633: 1, L0771: 1, L0775: 1, L0776: 1, L0636: 1, L0809: 1, L0777: 1 and L0366: 1.	105-131
610	HAMGP34	861668	620	32 - 1135	2025	Tyr-132 to Tyr-140, Cys-143 to Ser-154, Gly-252 to Thr-259, Glu-296 to Ala-302,	AR096: 1, AR089: 1, AR060: 1, AR033: 1, AR055: 1, AR039: 1, AR061: 1, AR104: 0,	22-57, 59-89, 204-231, 1-20, 326-342

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611	HHELG22	861683	621	184 - 918	2026			78-94, 46-62
					Arg-8 to Val-14, Tyr-25 to Arg-32, Cys-38 to Trp-44, His-70 to Ser-75, Glu-100 to Glu-106, Gly-117 to His-127, Gln-130 to Ser-136, Ser-167 to Ala-172,	AR104: 28, AR033: 17, AR089: 11, AR060: 10, AR096: 10, AR053: 9, AR052: 7, AR039: 7, AR055: 3, AR061: 2 L0731: 11, L0439: 10, L0752: 6, L0779: 5, H0046: 4, H0494: 4, L0770: 4,		
					Gln-311 to His-326, Pro-361 to Leu-368.	AR052: 0, AR053: 0 S0474: 22, H0556: 3, H0012: 3, H0521: 3, L0777: 3, H0638: 2, S0344: 2, L0769: 2, L0766: 2, L0803: 2, L0774: 2, L0375: 2, L0809: 2, L0748: 2, L0745: 2, L0747: 2, L0756: 2, L0779: 2, L0731: 2, H0484: 1, S0420: 1, H0722: 1, H0550: 1, H0592: 1, H0318: 1, H0081: 1, H0620: 1, H0673: 1, H0674: 1, H0560: 1, L0770: 1, L0638: 1, L0764: 1, L0804: 1, L0775: 1, L0655: 1, L0493: 1, L0659: 1, L0783: 1, L4501: 1, L0664: 1, L0438: 1, H0547: 1, S0328: 1, H0518: 1, L0746: 1, L0749: 1, H0445: 1, S0436: 1 and H0542: 1.		

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| Pro-184 to Ile-197, Glu-201 to Ser-209, Thr-215 to Val-222, Arg-228 to Glu-245. | L0766: 4, L0774: 4, S0010: 3, S0036: 3, L0764: 3, L0771: 3, L0803: 3, L0657: 3, L0748: 3, L0759: 3, H0542: 3, H0657: 2, S0360: 2, H0009: 2, H0562: 2, H0050: 2, L0363: 2, L0768: 2, L0550: 2, L0776: 2, L0655: 2, L0659: 2, H0648: 2, L0740: 2, L0754: 2, L0756: 2, L0758: 2, L0588: 2, H0136: 2, H0265: 1, H0686: 1, S0116: 1, H0341: 1, H0638: 1, S0418: 1, S0356: 1, S0358: 1, S0046: 1, S0222: 1, H0497: 1, H0333: 1, H0486: 1, H0013: 1, H0427: 1, H0156: 1, H0599: 1, H0581: 1, H0309: 1, H0327: 1, S0312: 1, S0214: 1, L0055: 1, H0038: 1, H0634: 1, H0433: 1, L0370: 1, S0438: 1, H0646: 1, S0002: 1, L0598: 1, H0529: 1, L0451: 1, L0769: 1, L0639: 1, L0637: 1, L5575: 1, L0630: 1, L0800: 1, L0662: 1, L0381: 1, L0775: 1, L0651: 1, L0653: 1, L0661: 1, L0809: 1, |

612	HDPTD75	861707	622	219 - 773	2027	L0532: 1, L0664: 1, L0665: 1, H0701: 1, S0122: 1, H0365: 1, H0539: 1, S0152: 1, H0555: 1, L0745: 1, L0777: 1, L0755: 1, L0757: 1, H0445: 1, S0436: 1, L0592: 1, L0608: 1, L0595: 1, L0362: 1, L0361: 1, S0026: 1, S0242: 1, H0422: 1 and S0424: 1.	
						AR052: 6, AR053: 5, AR096: 4, AR060: 3, AR033: 3, AR089: 3, AR039: 3, AR055: 3, AR061: 2, AR104: 2 L0731: 7, L0748: 5, L0599: 5, L0775: 4, H0521: 4, L0740: 4, L0766: 3, L0774: 3, L0747: 3, S0026: 3, H0069: 2, S0010: 2, S0474: 2, S0438: 2, L0771: 2, L0768: 2, L0649: 2, L0806: 2, L0653: 2, L0517: 2, L0663: 2, H0701: 2, H0522: 2, L0779: 2, L0755: 2, H0265: 1, H0713: 1, H0295: 1, S0212: 1, S0420: 1, S0444: 1, S0408: 1, H0393: 1, H0549: 1, H0613: 1, H0592: 1, H0331: 1,	6-38, 147-176, 111-137, 79-95

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613	HTLIC39	861985	623	191 - 637	2028			11q13		
						Ser-128 to Gln-133, Ser-144 to Thr-149.	H0250: 1, L0021: 1, H0706: 1, H0318: 1, H0263: 1, H0123: 1, L0471: 1, H0024: 1, H0510: 1, H0615: 1, H0031: 1, H0553: 1, H0169: 1, H0674: 1, S0366: 1, S0036: 1, S0016: 1, H0560: 1, H0714: 1, H0509: 1, H0652: 1, S0142: 1, L0762: 1, L0770: 1, L0769: 1, L0764: 1, L0767: 1, L0803: 1, L0651: 1, L0776: 1, L0655: 1, L0606: 1, L0661: 1, L0658: 1, L0512: 1, L0783: 1, L0384: 1, L0809: 1, S0052: 1, H0593: 1, H0689: 1, H0672: 1, S0378: 1, L0439: 1, L0749: 1, L0750: 1, L0757: 1, L0758: 1, L0759: 1, S0031: 1, H0595: 1, S0434: 1, H0423: 1, H0422: 1 and H0506: 1. AR055: 24, AR033: 18, AR053: 15, AR089: 13, AR052: 12, AR061: 8, AR060: 7, AR096: 5, AR039: 2, AR104: 2 H0201: 2, L0764: 2, L0748: 2, L0779: 2, L0759: 2, H0265: 1, H0402: 1,		102200, 106100, 131100, 131100, 131100, 133780, 147050, 153700,	4-31, 76-93, 97-114

614	HNECI74	862042	624	18 - 653	2029	Ser-105 to Pro-110, His-180 to His-196.	AR096: 22, AR089: 22, AR053: 16, AR039: 13, AR060: 12, AR033: 11, AR052: 9, AR055: 7, AR061: 6, AR104: 4 L0751: 15, L0752: 12, L0758: 9, L0766: 8, L0769: 7, L0750: 7, L0776: 6, L0753: 4, L0759: 4, H0585: 3, H0549: 3, H0620: 3, H0628: 3, H0617: 3, L0742: 3, L0754: 3, L0747: 3, L0731: 3, S0436: 3, H0624:	S0420: 1, S0360: 1, H0618: 1, H0424: 1, L0055: 1, H0087: 1, S0002: 1, L0769: 1, L0768: 1, L0766: 1, L0634: 1, H0436: 1, L0747: 1, L0777: 1 and H0542: 1.	161015, 164009, 168461, 168461, 168461, 180721, 180840, 191181, 193235, 209901, 232600, 259700, 259770, 600045, 600319, 600528, 601884	123-152, 63-83, 36-55, 143-159

2, H0265: 2, H0556: 2, H0657: 2, S0360: 2, H0580: 2, S0140: 2, H0050: 2, H0622: 2, H0063: 2, H0551: 2, L0763: 2, L0761: 2, L0774: 2, L0540: 2, S0126: 2, H0689: 2, L0743: 2, L0748: 2, L0780: 2, L0601: 2, S0192: 2, H0422: 2, H0159: 1, H0717: 1, S0114: 1, H0650: 1, H0656: 1, S0116: 1, S0001: 1, H0662: 1, S0418: 1, S0007: 1, H0550: 1, H0441: 1, H0559: 1, L0623: 1, T0039: 1, H0427: 1, H0599: 1, H0575: 1, H0706: 1, S0474: 1, H0581: 1, H0597: 1, H0546: 1, H0545: 1, H0051: 1, T0010: 1, S6028: 1, H0179: 1, H0271: 1, H0687: 1, H0286: 1, S0022: 1, H0615: 1, T0041: 1, H0647: 1, H0649: 1, H0652: 1, S0002: 1, L0796: 1, L0772: 1, L0373: 1, L0764: 1, L0662: 1, L0768: 1, L0794: 1, L0803: 1, L0775: 1, L0378: 1, L0806: 1, L0807: 1, L0512: 1, L0783: 1, L0787:

615	HCRNU23	862179	625	227 - 586	2030	Pro-60 to Gly-66.	AR033: 12, AR052: 6, AR061: 5, AR053: 5, AR039: 0, AR104: 0 ... 1, L0666: 1, H0520: 1, H0659: 1, H0670: 1, S0378: 1, H0710: 1, S0152: 1, H0521: 1, S0406: 1, H0555: 1, H0436: 1, H0345: 1, S3012: 1, S0037: 1, S3014: 1, S0027: 1, S0032: 1, L0749: 1, L0779: 1, L0592: 1, L0097: 1, H0543: 1, S0424: 1 and H0677: 1.	99-120, 32-48
616	HCMSK41	862374	626	13 - 372	2031	Pro-111 to Ser-120.	AR096: 4, AR055: 3, AR033: 3, AR061: 2, AR060: 2, AR052: 2, AR104: 1, AR089: 1, AR039: 0, H0196: 1 ... S0356: 1, H0431: 1, H0013: 1, H0599: 1, L0770: 1 and L0777: 1.	62-82
617	HCEAF67	862392	627	55 - 639	2032	Val-15 to Lys-21, Met-62 to Pro-67.	AR033: 12, AR052: 10, AR096: 10, AR053: 10, AR055: 9, AR089: 9, AR104: 9, AR060: 8, AR061: 6, AR039: 3	79-105, 112-137, 21-39, 161-177

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L0777: 7, L0731: 7, L0803:
6, S0212: 4, L0751: 4,
L0754: 4, S0358: 3, L0794:
3, L0517: 3, L0809: 3,
H0663: 2, S0038: 2, L0637:
2, L0771: 2, L0775: 2,
L0526: 2, L0783: 2, L0790:
2, H0144: 2, L0744: 2,
L0439: 2, L0752: 2, L0758:
2, L0594: 2, L0603: 2,
H0624: 1, S0408: 1, H0393:
1, H0549: 1, H0333: 1,
L0477: 1, S0010: 1, H0567:
1, H0011: 1, H0012: 1,
H0620: 1, H0083: 1, H0099:
1, H0615: 1, H0688: 1,
H0628: 1, H0135: 1, H0038:
1, H0616: 1, H0087: 1,
H0264: 1, H0412: 1, H0396:
1, H0647: 1, L0770: 1,
L0662: 1, L0768: 1, L0766:
1, L0804: 1, L0806: 1,
L0805: 1, L0776: 1, L0657:
1, L0558: 1, L0792: 1,
L0663: 1, H0520: 1, H0547:
1, H0519: 1, H0658: 1,
H0670: 1, H0672: 1, S0328:
1, S0380: 1, L0779: 1,
S0192: 1 and H0542: 1.

| 618 | HWAFQ22 | 862394 | 628 | 497 - 907 | 2033 | Met-1 to Ala-9, Ala-49 to Ser-54, Asp-98 to Trp-103. | AR096: 3, AR089: 1, AR033: 1, AR039: 1, AR060: 1, AR052: 0, AR055: 0, AR053: 0, AR061: 0, AR104: 0 L0439: 12, L0751: 7, L0745: 6, L0766: 4, L0438: 4, H0580: 3, L0717: 3, H0592: 3, S0372: 3, L0770: 3, L0665: 3, L0750: 3, H0422: 3, H0657: 2, S0442: 2, S0444: 2, H0581: 2, H0553: 2, H0494: 2, S0422: 2, L0637: 2, L0662: 2, L0649: 2, L0659: 2, L0793: 2, L0666: 2, L0664: 2, H0726: 2, H0521: 2, L0758: 2, H0445: 2, S0436: 2, L0603: 2, T0002: 1, H0341: 1, H0484: 1, S0420: 1, S0376: 1, H0730: 1, S0045: 1, S0476: 1, H0261: 1, H0586: 1, H0497: 1, H0013: 1, S0474: 1, H0566: 1, H0012: 1, H0594: 1, H0030: 1, L0055: 1, H0616: 1, H0488: 1, H0366: 1, S0426: 1, L0769: 1, L0638: 1, L5566: 1, L0646: 1, L0800: 1, L0764: 1, L0771: 1, | 60-79 |

619	HCECR08	862433	629	567 - 1076	2034	L0767: 1, L0768: 1, L0804: 1, L0774: 1, L0776: 1, L0655: 1, L0809: 1, H0703: 1, S0148: 1, H0724: 1, H0547: 1, H0519: 1, H0659: 1, H0648: 1, H0672: 1, H0710: 1, H0696: 1, S0406: 1, L0756: 1, L0777: 1, L0599: 1, L0601: 1, S0026: 1, S0242: 1 and H0542: 1.	132-152, 96-112, 77-93, 33-49
						AR104: 8, AR061: 4, AR089: 3, AR060: 2, AR033: 2, AR039: 1, AR055: 1, AR096: 1, AR052: 0, AR053: 0, L0779: 6, H0556: 5, L0740: 5, H0052: 4, L0766: 3, H0521: 3, S0028: 3, L0756: 3, S0222: 2, H0553: 2, H0038: 2, L0804: 2, L0666: 2, L0665: 2, L0438: 2, H0658: 2, L0439: 2, L0749: 2, L0758: 2, L0601: 2, H0543: 2, H0255: 1, H0663: 1, S0420: 1, S0356: 1, S0358: 1, H0619: 1, L0717: 1, H0411: 1, H0550: 1, H0559: 1, H0486: 1, H0618: 1, H0390: 1, S0346: 1,	

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620	HDPCX59	862442	630	685 - 1038	2035	Met-1 to Arg-6.	AR039: 15, AR033: 9, AR096: 8, AR052: 8, AR055: 8, AR089: 8, AR104: 7, AR053: 7, AR060: 5, AR061: 3 H0521: 1	4q11-q13	103600, 103600, 103600, 104150, 104150, 104500, 125490, 170650	95-118, 81-97, 40-56

H0581: 1, H0194: 1, H0121: 1, H0457: 1, H0050: 1, S0051: 1, H0594: 1, H0266: 1, H0271: 1, S0003: 1, H0328: 1, H0622: 1, H0644: 1, H0032: 1, H0135: 1, H0634: 1, H0616: 1, H0087: 1, H0551: 1, H0059: 1, H0100: 1, H0561: 1, S0448: 1, H0132: 1, H0633: 1, H0646: 1, S0002: 1, S0426: 1, L0796: 1, L0761: 1, L0764: 1, L0662: 1, L0768: 1, L0794: 1, L0803: 1, L0775: 1, L0805: 1, L0789: 1, L0663: 1, H0703: 1, H0519: 1, H0682: 1, H0435: 1, H0648: 1, S0152: 1, H0696: 1, H0555: 1, S0206: 1, L0754: 1, L0752: 1, L0731: 1, L0757: 1 and H0423: 1.

621	HBCAY76	862450	631	56 - 1186	2036	Arg-68 to Gly-73, Arg-81 to Asn-86, Cys-128 to Glu-133, Arg-175 to Asp-184, Pro-315 to Ser-334, Ser-337 to Ser-360.	AR061: 8, AR104: 2, AR033: 2, AR060: 1, AR053: 1, AR096: 0, AR055: 0, AR089: 0 L0748: 10, L0809: 5, L0777: 5, H0556: 4, L0769: 4, H0052: 3, S0206: 3, H0265: 2, L0764: 2, L0787: 2, L0439: 2, L0747: 2, L0601: 2, S0218: 1, L0426: 1, S0116: 1, H0484: 1, H0393: 1, H0370: 1, H0178: 1, H0123: 1, H0030: 1, H0553: 1, L0055: 1, H0494: 1, L0763: 1, L0770: 1, L0639: 1, L0773: 1, L0648: 1, L0805: 1, L0666: 1, L0664: 1, H0593: 1, H0659: 1, S0378: 1, H0696: 1 and L0759: 1.	1-19, 88-105, 151-167
622	HPJAV04	862479	632	166 - 1227	2037	Gln-30 to Cys-35, Leu-50 to Gln-61, Gly-133 to Phe-143, Pro-145 to Glu-157, Asp-178 to Glu-184, Arg-241 to Gln-247, Pro-260 to Leu-267, Phe-305 to Gln-312.	AR055: 10, AR104: 9, AR039: 7, AR060: 7, AR061: 7, AR052: 5, AR089: 5, AR053: 5, AR096: 5, AR033: 5, H0556: 3, H0341: 2, H0144: 2, L0743: 2, S0436: 2, H0543: 2, H0295: 1, H0661: 1, S0046: 1, H0587:	61-88, 288-304, 334-350

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623	HHFMA59	862567	633	249 - 749	2038	Arg-127 to Tyr-132.
624	HNFDV96	862665	634	276 - 2423	2039	Ser-39 to Val-46, His-50 to Ser-58, Cys-86 to Ile-91, Phe-106 to Gly-111, Cys-123 to Ala-131, Leu-154 to Glu-170, Leu-225 to Arg-235, Glu-288 to Leu-294, Pro-397 to Thr-402, Asp-411 to Glu-417, Arg-449 to Arg-455, Ile-531 to Thr-537, Pro-578 to Arg-587,

Additional column data:

Row 623: 1, H0333: 1, H0486: 1, H0013: 1, H0618: 1, H0009: 1, H0024: 1, T0010: 1, H0553: 1, H0551: 1, T0042: 1, S0150: 1, S0142: 1, S0422: 1, L0787: 1, H0519: 1, S0152: 1, H0521: 1, H0134: 1, L0740: 1, L0779: 1, S0434: 1, S0194: 1, S0276: 1 and H0422: 1.

AR104: 46, AR089: 34, AR096: 33, AR052: 31, AR033: 31, AR039: 30, AR053: 25, AR055: 18, AR060: 14, AR061: 9, H0619: 1 and S3014: 1.

67-85, 8-26, 109-125

Row 624: AR089: 1, AR055: 1, AR061: 1, AR060: 0, AR053: 0, AR039: 0, AR052: 0, AR096: 0, AR033: 0, H0624: 1, H0306: 1, H0497: 1, H0271: 1, H0521: 1 and L0595: 1.

234-256

| 625 | HNTAI35 | 862671 | 635 | 145-516 | 2040 | Ser-647 to Thr-656, Asp-670 to Ala-675, His-682 to Asn-688. | AR096: 18, AR089: 14, AR039: 10, AR104: 8, AR060: 7, AR033: 6, AR053: 5, AR052: 5, AR055: 3, AR061: 2, H0046: 7, H0521: 7, H0556: 6, H0551: 5, H0265: 4, S0212: 4, H0585: 3, H0599: 3, S0002: 3, H0522: 3, H0149: 2, S0040: 2, H0341: 2, H0586: 2, H0024: 2, H0266: 2, S0250: 2, H0622: 2, H0634: 2, L0596: 2, T0002: 1, H0656: 1, H0638: 1, H0125: 1, S0418: 1, S0358: 1, S0132: 1, H0619: 1, H0437: 1, H0415: 1, H0592: 1, H0642: 1, H0486: 1, T0040: 1, H0250: 1, H0575: 1, H0618: 1, S0474: 1, H0123: 1, H0050: 1, H0012: 1, H0014: 1, H0373: 1, H0286: 1, H0039: 1, H0135: 1, H0022: 1, T0042: 1, H0560: 1, H0561: 1, S0144: 1, S0142: 1, S0344: 1, S0210: 1, L0378: | 86-106, 19-36 |

626	HCE3X63	862807	636	719 - 2422	2041	Ser-11 to Glu-17.	1	1, H0519: 1, H0593: 1, H0435: 1, S0390: 1, S0037: 1, S0027: 1, L0740: 1, L0779: 1, L0593: 1, L0601: 1 and H0422: 1. AR052: 3, AR053: 2, AR096: 2, AR055: 1, AR089: 1, AR060: 1, AR061: 0, AR033: 0, AR039: 0, AR104: 0		20-50, 206-229, 167-189, 77-103, 58-75, 128-144, 240-256
627	HCE2K01	862851	637	103 - 915	2042	Ala-12 to Glu-27, Pro-35 to Ser-43, Pro-70 to Gly-79, Ser-92 to Val-98, Pro-166 to Leu-175, Ser-234 to Thr-246.	12q13	AR104: 15, AR033: 15, AR055: 4, AR039: 3, AR052: 3, AR089: 2, AR060: 2, AR061: 2, AR053: 2, AR096: 1 H0052: 7, L0769: 7, L0741: 6, S0222: 3, S0031: 3, H0441: 2, S0049: 2, S0036: 2, L0366: 2, S0106: 2, S0110: 1, H0261: 1, S0346: 1, S0050: 1, S0038: 1, L0773: 1, L0384: 1, L0789: 1, H0521: 1, H0522: 1, L0742: 1, L0752: 1, L0758: 1 and S0260: 1.	107777, 123940, 139350, 139350, 148040, 148041, 148043, 148070, 231550, 600194, 600231, 600536, 600808, 600956, 601284, 601769, 601769,	100-130, 248-264, 142-158

| 628 | HJPCG05 | 862913 | 638 | 695 - 1072 | 2043 | His-91 to Leu-97, Pro-108 to Gly-118, Leu-120 to Pro-126. | AR055: 19, AR053: 18, AR033: 15, AR052: 15, AR089: 12, AR039: 12, AR060: 10, AR061: 8, AR096: 6, AR104: 4, L0375: 3, H0575: 2, L0800: 2, L0794: 2, L0789: 2, H0556: 1, H0662: 1, S0418: 1, H0619: 1, H0549: 1, H0590: 1, H0052: 1, H0083: 1, H0266: 1, H0286: 1, H0644: 1, S0036: 1, H0433: 1, H0412: 1, H0413: 1, T0042: 1, S0144: 1, S0142: 1, S0344: 1, L0770: 1, L0761: 1, L0774: 1, H0518: 1, L0777: 1, L0758: 1 and H0665: 1. | 601928, 602116, 602153 | 64-89, 3-19 |
| 629 | HOUFG48 | 863051 | 639 | 61 - 633 | 2044 | Pro-10 to Leu-20, Asn-33 to Val-38. | AR055: 6, AR052: 5, AR033: 5, AR089: 5, AR053: 4, AR061: 4, AR060: 3, AR096: 3, AR039: 1, AR104: 1, L0752: 6, L0747: 5, L0438: 4, L0439: 4, S0007: 3, L0776: 3, H0686: 2, | | 115-134, 57-73 |

| 630 | HCYBG68 | 863308 | 640 | 154 - 1260 | 2045 | Leu-178 to Gly-191, Glu-225 to Thr-232, | AR033: 2, AR060: 1, AR096: 1, AR055: 1, | S0040: 2, T0039: 2, H0052: 2, H0009: 2, H0031: 2, H0068: 2, L0769: 2, L0809: 2, L0665: 2, L0749: 2, L0757: 2, L0758: 2, L0590: 2, L0599: 2, L0595: 2, H0294: 1, S0376: 1, S0360: 1, H0580: 1, H0550: 1, H0587: 1, H0486: 1, H0013: 1, H0581: 1, L0471: 1, H0023: 1, S0362: 1, H0266: 1, H0290: 1, H0428: 1, H0038: 1, H0551: 1, H0412: 1, T0041: 1, T0042: 1, H0561: 1, S0144: 1, H0538: 1, H0529: 1, L0637: 1, L0372: 1, L0773: 1, L0662: 1, L0626: 1, L0768: 1, L0766: 1, L0803: 1, L0519: 1, H0701: 1, H0547: 1, H0659: 1, H0660: 1, H0651: 1, H0539: 1, S0380: 1, H0710: 1, H0521: 1, H0214: 1, H0478: 1, H0540: 1, L0742: 1, L0743: 1, L0750: 1, L0777: 1, L0731: 1, S0434: 1, L0592: 1 and H0543: 1. | 139-159 |

No.	Clone ID				SEQ	Mutations	SNP data	
						Glu-247 to Ser-256, Ser-262 to Glu-274, Glu-280 to Gln-290.	AR089: 1, AR053: 1, AR039: 0, AR061: 0, AR104: 0 S0007: 3, S0010: 2, S0028: 2, L0366: 2, H0170: 1, H0583: 1, S0001: 1, S0282: 1, T0114: 1, H0244: 1, S0346: 1, H0318: 1, H0581: 1, H0320: 1, H0051: 1, S0051: 1, S6028: 1, H0416: 1, H0644: 1, H0068: 1, H0551: 1, L0776: 1, H0701: 1, H0520: 1, L0592: 1, L0594: 1, L0777: 1, L0592: 1, L0594: 1 and S0242: 1.	
631	HDTBD83	863372	641	268 - 603	2046	Gly-16 to Arg-21.	AR033: 4, AR055: 2, AR089: 2, AR060: 1, AR096: 1, AR061: 1, AR104: 0, AR039: 0, AR052: 0, AR053: 0 H0052: 2 and H0486: 1.	79-95, 21-37
632	HCDEG27	863396	642	35 - 355	2047	Glu-45 to Phe-53.	AR039: 81, AR053: 42, AR033: 38, AR055: 34, AR052: 33, AR096: 31, AR104: 29, AR089: 28, AR060: 25, AR061: 17 H0251: 6, L0770: 2, L0762: 1 and L0757: 1.	60-93, 80-96
633	HBXDJ07	863541	643	124 -	2048	Glu-62 to Lys-68,	AR033: 10, AR104: 5,	1-20, 112-

634	HBKDA80	863586	644	71 - 676	2049	651	Gly-18 to Lys-25, Val-43 to Gly-48, Gly-56 to Arg-62.	6p21.3			136-152
							Asn-105 to Gly-113.	AR104: 57, AR033: 49, AR061: 13, AR096: 12, AR089: 10, AR055: 9, AR060: 6, AR039: 4, AR052: 2, AR053: 1 L0748: 22, H0052: 19, S0036: 12, L0752: 10, L0439: 9, L0622: 8, S0051: 7, H0478: 7, L0623: 6, L0809: 6, L0747: 6, H0441: 5, H0599: 5, L0770: 5, L0666: 5, L0741: 5, L0743: 5, L0745: 5, S0049: 4, L0471: 4, L0794: 4, L0438: 4, S0330: 4, H0521: 4, L0742: 4, L0746: 4, L0485: 4, S0358: 3, H0687: 3,	106300, 108800, 120290, 120290, 120810, 120820, 142857, 142858, 150270, 167250, 170261, 177900, 179450, 201910, 217000, 222100, 233100,	135, 77-103
								AR052: 3, AR096: 3, AR055: 2, AR053: 2, AR089: 1, AR061: 1, AR060: 1, AR039: 1 L0439: 6, S0222: 3, L0794: 3, H0052: 2, S6028: 2, S0038: 2, L0740: 2, L0756: 2, H0624: 1, H0171: 1, S6024: 1, H0013: 1, H0374: 1, H0050: 1, S0050: 1, H0051: 1, S0386: 1, H0144: 1, L0438: 1 and L0746: 1.			

	235200, 248611, 256550, 256550, 600202, 600261, 601868, 602280; 602475	
	S0038: 3, S0438: 3, L0774: 3, L0659: 3, H0539: 3, L0779: 3, S6024: 2, S0001: 2, S0356: 2, H0645: 2, S6026: 2, S0222: 2, S6014: 2, H0455: 2, H0586: 2, H0194: 2, H0051: 2, H0201: 2, S0388: 2, T0010: 2, S0364: 2, L0455: 2, H0068: 2, H0135: 2, H0264: 2, S0112: 2, L0371: 2, L0769: 2, L0638: 2, L3905: 2, L5566: 2, L0800: 2, L0803: 2, L0664: 2, S0310: 2, H0660: 2, L0612: 2, L0744: 2, L0756: 2, L0361: 2, H0171: 1, H0713: 1, L0393: 1, L0785: 1, S0029: 1, S0408: 1, H0722: 1, S0007: 1, H0393: 1, S0300: 1, H0351: 1, H0549: 1, H0550: 1, H0357: 1, H0592: 1, H0587: 1, S0280: 1, H0156: 1, H0597: 1, H0327: 1, H0046: 1, H0150: 1, H0009: 1, H0569: 1, H0014: 1, S0362: 1, L0163: 1, H0408: 1, H0188: 1, H0284: 1, H0615: 1, H0428: 1, H0673: 1, H0708: 1, S0366: 1,	

635	HSSDP38	863587	645	214 - 1188	2050		6p21.3		122-138
						T0004: 1, L0351: 1, S0352: 1, S0440: 1, S0144: 1, S0344: 1, L0763: 1, L0500: 1, L5575: 1, L0761: 1, L0646: 1, L0771: 1, L0648: 1, L0649: 1, L0804: 1, L0651: 1, L0805: 1, L0776: 1, L0542: 1, L0782: 1, L0783: 1, L0789: 1, L0790: 1, L0791: 1, S0053: 1, S0374: 1, H0520: 1, H0547: 1, H0593: 1, H0670: 1, H0522: 1, S0044: 1, H0555: 1, H0631: 1, S0432: 1, L0740: 1, L0750: 1, L0786: 1, L0755: 1, S0031: 1, H0445: 1, L0581: 1 and L0604: 1.	Gly-18 to Lys-25, Val-29 to Gly-34, Gly-42 to Arg-48, Leu-199 to Arg-204, Trp-220 to Asp-228, Asn-261 to Gln-268.	AR104: 42, AR033: 40, AR055: 13, AR061: 12, AR089: 9, AR096: 8, AR060: 7, AR052: 4, AR053: 3, AR039: 3, L0748: 22, H0052: 19, S0036: 12, L0752: 10, L0439: 9, L0622: 8, S0051: 7, H0478: 7, L0623: 6, L0809: 6, L0747: 6, H0441: 5, H0599: 5, L0770: 5, L0666: 5, L0741: 5, L0743:	106300, 108800, 120290, 120290, 120810, 120820, 142857, 142858, 150270, 167250, 170261, 177900,

5, L0745: 5, S0049: 4, L0471: 4, L0794: 4, L0438: 4, S0330: 4, H0521: 4, L0742: 4, L0746: 4, L0485: 4, S0358: 3, H0687: 3, S0038: 3, S0438: 3, L0774: 3, L0659: 3, H0539: 3, L0779: 3, S6024: 2, S0001: 2, S0356: 2, H0645: 2, S6026: 2, S0222: 2, S6014: 2, H0455: 2, H0586: 2, H0194: 2, H0051: 2, H0201: 2, S0388: 2, T0010: 2, S0364: 2, L0455: 2, H0068: 2, H0135: 2, H0264: 2, S0112: 2, L0371: 2, L0769: 2, L0638: 2, L3905: 2, L5566: 2, L0800: 2, L0803: 2, L0664: 2, S0310: 2, H0660: 2, L0612: 2, L0744: 2, L0756: 2, L0361: 2, H0171: 1, H0713: 1, L0393: 1, L0785: 1, S0029: 1, S0408: 1, H0722: 1, S0007: 1, H0393: 1, S0300: 1, H0351: 1, H0549: 1, H0550: 1, H0357: 1, H0592: 1, H0587: 1, S0280: 1, H0156: 1, H0597: 1, H0327: 1, H0046: 1, H0150: 1, H0009:	179450, 201910, 217000, 222100, 233100, 235200, 248611, 256550, 256550, 600202, 600261, 601868, 602280, 602475

636	HSSGL44	863654	646	1668 - 1982	2051			87-104
					Ala-17 to Ser-27, Arg-42 to Ser-57, Thr-72 to Gly-85.	1, H0569: 1, H0014: 1, S0362: 1, L0163: 1, H0408: 1, H0188: 1, H0284: 1, H0615: 1, H0428: 1, H0673: 1, H0708: 1, S0366: 1, T0004: 1, L0351: 1, S0352: 1, S0440: 1, S0144: 1, S0344: 1, L0763: 1, L0500: 1, L5575: 1, L0761: 1, L0646: 1, L0771: 1, L0648: 1, L0649: 1, L0804: 1, L0651: 1, L0805: 1, L0776: 1, L0542: 1, L0782: 1, L0783: 1, L0789: 1, L0790: 1, L0791: 1, S0053: 1, S0374: 1, H0520: 1, H0547: 1, H0593: 1, H0670: 1, H0522: 1, S0044: 1, H0555: 1, H0631: 1, S0432: 1, L0740: 1, L0750: 1, L0786: 1, L0755: 1, S0031: 1, H0445: 1, L0581: 1 and L0604: 1.	AR055: 4, AR052: 4, AR096: 3, AR060: 3, AR033: 3, AR053: 3, AR089: 3, AR061: 2, AR104: 2, AR039: 0 L0439: 8, H0556: 6, L0766: 4, L0740: 4, S0420:	

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3, S0222: 3, L0749: 3,
H0265: 2, S0418: 2, H0393:
2, T0039: 2, H0013: 2,
H0012: 2, L0769: 2, L0768:
2, L0809: 2, L0565: 2,
H0547: 2, S0126: 2, S0027:
2, L0743: 2, L0748: 2,
L0751: 2, L0747: 2, L0779:
2, L0731: 2, L0758: 2,
H0171: 1, T0002: 1, H0224:
1, H0657: 1, H0177: 1,
H0402: 1, H0580: 1, H0600:
1, H0486: 1, L0021: 1,
H0042: 1, S0010: 1, H0421:
1, H0196: 1, H0009: 1,
L0471: 1, H0620: 1, H0024:
1, S0051: 1, H0594: 1,
H0247: 1, H0266: 1, S0214:
1, S0364: 1, H0598: 1,
H0135: 1, H0264: 1, H0413:
1, S0038: 1, L0370: 1,
T0042: 1, H0334: 1, H0647:
1, L0763: 1, L0772: 1,
L0372: 1, L0662: 1, L0805:
1, L0659: 1, L0518: 1,
L0647: 1, H0697: 1, S0380:
1, H0518: 1, H0521: 1,
S0146: 1, H0576: 1, S0028:
1, L0777: 1, L0752: 1,
H0445: 1, H0595: 1, L0588:

637	HBODY10	863665	647	6 - 875	2052	Ala-13 to Gly-18.	1 and H0542: 1. AR096: 8, AR060: 7, AR089: 6, AR055: 6, AR052: 6, AR053: 5, AR033: 5, AR104: 4, AR061: 4, AR039: 0 L0777: 3, H0624: 2, S0366: 2, L0779: 2, L0759: 2, L0604: 2, H0171: 1, H0149: 1, H0729: 1, H0741: 1, L0622: 1, L0623: 1, H0546: 1, H0213: 1, S0364: 1, H0708: 1 and L0636: 1.	93-114, 185-203, 56-72, 256-272, 20-36, 116-132
638	HDFUB58	863687	648	1229 - 1714	2053	Ser-20 to Lys-33, Glu-100 to Thr-111.	AR104: 5, AR033: 4, AR096: 3, AR089: 3, AR055: 3, AR053: 2, AR060: 2, AR061: 1, AR052: 1, AR039: 0 L0748: 9, L0777: 3, L0438: 2, L0751: 2, L0362: 2, H0381: 1, S0282: 1, S0045: 1, L0717: 1, L0037: 1, H0567: 1, L0471: 1, S6028: 1, H0163: 1, H00040: 1, H0100: 1, L0639: 1, L0775: 1, L0375: 1, L0776: 1, S0374: 1, S0330: 1, L0741: 1, L0743: 1, L0744: 1, L0439: 1 and L0756: 1.	108-134, 78-94, 139-155

639	HSMBE70	863709	649	586 - 900	2054	Gly-2 to Gly-10, Ser-56 to Cys-62.	AR096: 5, AR033: 4, AR053: 4, AR104: 4, AR052: 3, AR089: 3, AR060: 2, AR055: 1, AR061: 1, AR039: 0 H0295: 4, L0731: 4, S0040: 2, H0688: 2, L0775: 2, L0659: 2, H0521: 2, L0744: 2, H0713: 1, H0294: 1, S0298: 1, H0370: 1, H0586: 1, H0599: 1, S0364: 1, H0059: 1, L0769: 1, L0646: 1, L0764: 1, L0363: 1, L0776: 1, L0749: 1 and H0668: 1.			82-99, 63-79
640	HEPAA94	863718	650	91 - 405	2055		AR039: 2, AR055: 2, AR104: 1, AR033: 1, AR060: 1, AR053: 0, AR089: 0, AR061: 0, AR096: 0, AR052: 0 S0212: 5, L0776: 3, S0404: 3, S0045: 2, L0665: 2, H0670: 2, L0777: 2, L0757: 2, S0342: 1, S0418: 1, H0339: 1, H0013: 1, L0021: 1, H0318: 1, H0545: 1, H0150: 1, T0079: 1, H0594: 1, H0188: 1, H0687: 1, H0252: 1, H0644: 1, H0616: 1, H0413: 1, L0794: 1,	8p11.2-p11.1	136350, 152760, 180100, 182900, 277700, 600617	51-68, 24-40, 84-100

641	HHECU86	863734	651	90 - 737	2056	Ser-29 to His-36.	AR039: 6, AR053: 5, AR052: 5, AR096: 5, AR089: 4, AR033: 4, AR104: 4, AR060: 3, AR055: 3, AR061: 2 L0766: 3, L0774: 3, S0126: 3, L0748: 3, H0551: 2, L0640: 2, L0770: 2, L0771: 2, L0649: 2, L0663: 2, L0740: 2, L0779: 2, L0731: 2, L0593: 2, H0542: 2, S0116: 1, S0420: 1, S0376: 1, S0360: 1, H0580: 1, H0497: 1, H0575: 1, H0581: 1, H0544: 1, H0050: 1, H0708: 1, H0714: 1, H0641: 1, L3904: 1, L0646: 1, L0642: 1, L0764: 1, L0666: 1, S0390: 1, L0745: 1, H0543: 1 and H0423: 1.	L0766: 1, L0803: 1, L0657: 1, L0809: 1, L0789: 1, L0790: 1, L0663: 1, H0144: 1, L0438: 1, H0658: 1, H0651: 1, L0743: 1, L0439: 1, L0758: 1, S0242: 1, S0194: 1 and S0021: 1. 6	188-204
642	HBXGQ49	863848	652	111 - 1058	2057	Gly-96 to Gly-102, Pro-114 to Trp-121,	AR033: 213, AR061: 162, AR089: 117, AR060: 103,		253-269

643	HCECL08	863887	653	207 - 992	2058	Tyr-24 to His-32, Pro-38 to Ala-44, Pro-66 to Glu-75, His-111 to Gly-116, Tyr-139 to Ser-146, Thr-176 to Ser-181, Lys-239 to Lys-249.	AR055: 10, AR060: 6, AR033: 6, AR061: 5, AR096: 5, AR052: 4, AR089: 4, AR053: 4, AR039: 4, AR104: 3 L0740: 9, L0748: 6, L0803: 3, L0777: 3, H0556: 2, L0741: 2, L0746: 2, H0392: 1, H0052: 1, H0009: 1, H0012: 1, H6620: 1, T0067: 1, L0598: 1, L0770: 1, L0769: 1, L0805: 1, L0783: 1, L0809: 1, H0144: 1, L0745: 1, L0749: 1, L0759: 1, S0031: 1, L0608: 1, L0593: 1, L0595: 1 and H0352: 1.	1q21	104770, 107670, 110700, 135940, 145001, 146790, 152445, 152445, 159001, 174000, 179755, 182860, 182860, 182860, 191315, 230800, 230800, 266200,	211-239, 1-18, 156-172
						Leu-135 to Gly-145, Glu-189 to Phe-195, Cys-233 to His-239, Glu-283 to Thr-299.	AR096: 15, AR052: 9, AR055: 7, AR053: 6, AR039: 0, AR104: 0 H0051: 6, S0036: 4, L0770: 4, H0052: 3, L0769: 3, L0803: 3, S0010: 2, S0112: 2, S0282: 1, H0305: 1, H0261: 1, H0438: 1, S0346: 1, H0327: 1, H0046: 1, S0051: 1, H0100: 1, L0635: 1, L0741: 1 and S0260: 1.			

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644	HUCOT09	863914	654	5 - 1318	2059		600897, 601105, 601412, 601652, 602491	298-314
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S0374: 2, H0593: 2, H0539:
2, L0750: 2, L0779: 2,
L0731: 2, L0759: 2, S0031:
2, L0596: 2, L0604: 2,
L0601: 2, H0667: 2, S6024:
1, S0114: 1, H0341: 1,
H0255: 1, H0661: 1, H0662:
1, H0638: 1, S0420: 1,
H0675: 1, H0580: 1, S0132:
1, S0222: 1, H0455: 1,
H0587: 1, H0333: 1, H0069:
1, H0427: 1, H0097: 1,
H0098: 1, T0082: 1, H0706:
1, S0049: 1, H0196: 1,
H0194: 1, H0597: 1, H0327:
1, H0545: 1, H0024: 1,
H0373: 1, H0051: 1, H0510:
1, H0179: 1, H0288: 1,
H0252: 1, H0615: 1, H0039:
1, S0364: 1, H0124: 1,
S0366: 1, H0163: 1, H0090:
1, S0038: 1, H0561: 1,
L0065: 1, H0647: 1, S0144:
1, S0344: 1, S0002: 1,
L0598: 1, H0529: 1, L0640:
1, L0763: 1, L0770: 1,
L0638: 1, L0637: 1, L0761:
1, L0646: 1, L0771: 1,
L0773: 1, L0533: 1, L0775:

| 645 | HYBAF24 | 863934 | 655 | 31 - 510 | 2060 | Cys-51 to Arg-76, Glu-122 to Gln-129. | AR052: 12, AR089: 11, AR055: 10, AR053: 10, AR033: 10, AR096: 10, AR060: 9, AR104: 8, AR061: 7, AR039: 4 L0748: 8, H0677: 7, L0601: 6, L0747: 4, L0362: 4, L0764: 3, L0779: 3, L0752: 3, H0657: 2, H0402: 2, S0132: 2, S0278: 2, H0486: 2, S0010: 2, H0009: 2, H0090: 2, H0038: 2, H0063: 2, S0438: 2, S0002: 2, L0768: 2, L0766: 2, L0774: 2, L0665: 2, L0438: 2, H0547: 2, H0658: 2, S3014: 2, L0754: 2, L0750: 2, L0731: 2, L0596: 2, H0423: 2, H0352: 2, H0686: | 1, L0523: 1, L0379: 1, L0657: 1, L0783: 1, H0144: 1, H0520: 1, H0690: 1, H0659: 1, H0670: 1, H0648: 1, S0378: 1, S0152: 1, S0332: 1, H0522: 1, H0696: 1, H0436: 1, S3012: 1, S0028: 1, L0744: 1, L0752: 1, S0394: 1, L0588: 1, L0608: 1, S0192: 1 and S0276: 1. | 101-117 |

| 646 | HEMET46 | 863977 | 656 | 201 - | 2061 | Thr-36 to Gln-49, | 1, L0002: 1, S0358: 1, H0437: 1, H0602: 1, T0109: 1, H0599: 1, H0036: 1, H0004: 1, H0318: 1, H0581: 1, H0421: 1, H0052: 1, H0046: 1, H0041: 1, L0471: 1, H0024: 1, L0163: 1, S0051: 1, H0083: 1, H0188: 1, H0252: 1, H0615: 1, L0483: 1, T0006: 1, H0598: 1, H0040: 1, T0041: 1, S0440: 1, S0150: 1, S0142: 1, S0344: 1, L0369: 1, L0763: 1, L0770: 1, L0769: 1, L4747: 1, L0772: 1, L0372: 1, L0771: 1, L0794: 1, L0499: 1, L0776: 1, L0655: 1, L0807: 1, L0657: 1, L0513: 1, L0382: 1, L0809: 1, L0787: 1, L0664: 1, H0690: 1, H0659: 1, H0670: 1, H0660: 1, H0710: 1, S0152: 1, H0696: 1, H0704: 1, H0555: 1, S0028: 1, L0741: 1, L0740: 1, L0755: 1, L0757: 1, L0758: 1, H0595: 1, L0485: 1, S0026: 1, H0216: 1, H0543: 1, H0422: 1 and S0424: 1. AR060: 11, AR055: 8, | | | 184-216, |

647	HFXJM86	863982	657	246 - 1757	983			1-17
						Thr-56 to Thr-64, Thr-93 to Asp-99, Gln-120 to Lys-133, Asp-145 to Gly-152, Glu-174 to Ser-180, Ala-183 to Tyr-188, Cys-216 to Ser-237, His-253 to Asn-261.	AR033: 5, AR089: 5, AR053: 4, AR052: 4, AR061: 4, AR096: 4, AR104: 3, AR039: 1 L0759: 8, L0598: 5, L0588: 3, S0360: 2, S0045: 2, L0471: 2, H0412: 2, L0803: 2, L0774: 2, L0776: 2, L0740: 2, L0752: 2, L0599: 2, S0116: 1, H0662: 1, S0444: 1, S0046: 1, H0592: 1, H0587: 1, H0574: 1, H0244: 1, H0427: 1, H0050: 1, H0014: 1, H0674: 1, S0366: 1, H0433: 1, H0413: 1, H0623: 1, T0042: 1, UNKWN: 1, L0665: 1, S0330: 1, S3012: 1, L0777: 1, H0343: 1 and S0446: 1.	
				2062			AR052: 62, AR053: 48, AR055: 35, AR096: 29, AR089: 20, AR104: 17, AR039: 14, AR060: 13, AR033: 13, AR061: 8 H0599: 5, H0619: 2, S0366: 2, S0282: 1, S0029: 1, H0735: 1, H0200: 1, H0373: 1 and S6028: 1.	248-273, 116-135, 73-92, 299-316, 361-377, 428-444, 459-475, 6-22, 137-153, 384-400

| 648 | HDTHL37 | 864023 | 658 | 121 - 897 | 2063 | Ile-50 to Lys-57, Thr-71 to Val-78, Asn-81 to Ala-91, Cys-99 to Gly-105, Ser-138 to Thr-150. | AR033: 7, AR089: 7, AR039: 7, AR052: 6, AR096: 5, AR060: 5, AR061: 4, AR104: 4, AR053: 4, AR055: 3 L0748: 11, L0769: 7, L0766: 7, L0666: 6, L0754: 6, L0779: 6, H0620: 5, L0483: 5, L0770: 5, L0764: 5, L0747: 5, L0759: 5, H0013: 4, H0012: 4, L0776: 4, L0749: 4, L0777: 4, L0755: 4, L0594: 4, S0418: 3, S0360: 3, S0408: 3, H0244: 3, S0440: 3, L0771: 3, L0375: 3, L0663: 3, L0664: 3, L0665: 3, L0751: 3, L0757: 3, H0650: 2, H0038: 2, T0042: 2, H0494: 2, L0761: 2, L0662: 2, L0806: 2, H0519: 2, H0682: 2, H0660: 2, L0439: 2, L0740: 2, L0750: 2, L0758: 2, L0596: 2, H0422: 2, H0170: 1, H0556: 1, T0002: 1, H0686: 1, S0040: 1, S0114: 1, H0657: 1, H0341: 1, H0663: 1, S0356: 1, S0358: 1, H0393: 1, H0261: 1, S0222: 1, H0431: 1, | | 240-259, 112-128, 201-217, 26-42 |

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| 649 | HBJFE32 | 864093 | 659 | 338 - 868 | 2064 | Leu-82 to Thr-97. | H0404: 1, H0586: 1, L0623: 1, H0486: 1, H0427: 1, H0156: 1, H0706: 1, H0318: 1, S0474: 1, H0251: 1, H0309: 1, H0263: 1, H0041: 1, H0197: 1, H0266: 1, H0328: 1, L0194: 1, H0644: 1, H0180: 1, L0055: 1, H0068: 1, H0591: 1, H0063: 1, H0413: 1, H0100: 1, H0625: 1, S0438: 1, S0150: 1, H0646: 1, S0144: 1, S0142: 1, S0210: 1, S0002: 1, H0529: 1, L0369: 1, L0762: 1, L0763: 1, L0638: 1, L0667: 1, L0645: 1, L0648: 1, L0774: 1, L0775: 1, L0805: 1, L0654: 1, L0657: 1, L0659: 1, L0636: 1, L0518: 1, L0809: 1, H0689: 1, H0690: 1, H0684: 1, H0435: 1, H0670: 1, S0328: 1, S0330: 1, H0539: 1, S0380: 1, H0696: 1, H0576: 1, S0434: 1, L0591: 1, L0592: 1, S0026: 1, L0600: 1 and H0352: 1. AR055: 13, AR089: 12, AR033: 10, AR060: 10, AR104: 9, AR039: 8, | | | 54-70, 100-116 |

650	HSLDY71	864179	660	77 - 769	2065	Thr-83 to Asn-92.	AR096: 5, AR039: 4, AR089: 4, AR055: 4, AR060: 3, AR053: 3, AR033: 3, AR052: 3, AR104: 2, AR061: 2 H0521: 3, L0600: 3, L0805: 2, L0666: 2, H0547: 2, H0445: 2, H0265: 1, H0556: 1, S0342: 1, H0713: 1, T0008: 1, S0049: 1, H0052: 1, L0471: 1, H0598: 1, H0551: 1, H0561: 1, L0768: 1, L0438: 1, H0555:	AR052: 8, AR053: 8, AR096: 8, AR061: 7 H0341: 2, S0045: 2, H0551: 2, H0556: 1, S0376: 1, H0619: 1, H0437: 1, H0601: 1, H0333: 1, H0485: 1, H0013: 1, H0635: 1, H0590: 1, H0318: 1, H0009: 1, H0266: 1, H0267: 1, S0003: 1, H0615: 1, H0644: 1, H0383: 1, H0068: 1, H0316: 1, H0116: 1, H0264: 1, H0561: 1, L0768: 1, L0794: 1, H0144: 1, H0436: 1, S0028: 1, L0744: 1, H0445: 1, H0542: 1 and S0424: 1.			138-154, 190-206, 119-135, 95-111, 159-175

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651	HULFN21	864272	661	680 - 3	2066					
						Gly-45 to Pro-80, Pro-110 to Gly-116, Pro-118 to Ala-132, Ser-146 to Ala-151, Thr-153 to Ser-163, Gln-171 to Pro-177, Ser-196 to Pro-222.	AR055: 20, AR033: 14, AR089: 12, AR061: 10, AR053: 10, AR052: 10, AR060: 7, AR096: 6, AR104: 2, AR039: 0 L0747: 15, L0731: 11, H0657: 7, H0032: 7, L0752: 7, L0766: 6, L0775: 6, L0740: 6, L0749: 6, H0341: 5, H0318: 5, H0617: 5, L0755: 5, H0484: 4, S0360: 4, S0408: 4, S0222: 4, H0087: 4, L0769: 4, L0804: 4, L0776: 4, H0659: 4, L0742: 4, L0748: 4, L0751: 4, L0754: 4, H0661: 3, S0410: 3, H0486: 3, H0266: 3, L0803: 3, H0144: 3, H0547: 3, H0658: 3, S3014: 3, L0758: 3, L0759: 3, H0543: 3, H0265: 2, H0685: 2, S0134: 2, S0116: 2, H0638: 2, S0418: 2, S0358: 2, H0392: 2, L0623: 2, H0013: 2, H0156: 2, H0530: 2, S0051: 2, H0083: 2, H0169: 2, H0616: 2, H0059:	1, S0028: 1, L0439: 1, L0779: 1, L0757: 1, S0436: 1 and L0601: 1.			83-110, 1-17

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L0772: 2, L0771: 2, L0521:
2, L0768: 2, L0794: 2,
L0375: 2, L0806: 2, L0805:
2, L0655: 2, L0657: 2,
L0526: 2, L0518: 2, L0664:
2, H0690: 2, S0378: 2,
S0152: 2, L0750: 2, L0779:
2, L0596: 2, H0653: 2,
H0352: 2, H0170: 1, H0556:
1, H0686: 1, H0295: 1,
H0483: 1, H0255: 1, H0663:
1, H0306: 1, H0125: 1,
S0356: 1, S0354: 1, H0722:
1, H0728: 1, S0046: 1,
S0132: 1, H0370: 1, H0333:
1, H0574: 1, H0485: 1,
T0109: 1, H0421: 1, S0049:
1, H0251: 1, H0596: 1,
H0327: 1, H0546: 1, H0545:
1, H0150: 1, H0567: 1,
H0570: 1, H0123: 1, H0081:
1, H0012: 1, H0620: 1,
H0014: 1, H0373: 1, S0388:
1, H0510: 1, H0375: 1,
H0594: 1, S6028: 1, H0267:
1, H0292: 1, H0615: 1,
H0688: 1, H0428: 1, H0604:
1, H0031: 1, H0644: 1,
H0606: 1, L0055: 1, H0165:

652	HCRPE50	864273	662	18 - 692	2067		92-119
					Pro-5 to Arg-12, Gly-54 to Pro-89, Glu-125 to Ala-131, Ser-145 to Ala-150, Thr-152 to Ser-162,	1, H0674: 1, S0364: 1, H0708: 1, S0366: 1, H0598: 1, H0135: 1, H0090: 1, H0591: 1, H0038: 1, H0634: 1, H0268: 1, H0413: 1, H0100: 1, H0494: 1, H0560: 1, H0396: 1, H0561: 1, H0366: 1, S0294: 1, S0440: 1, H0509: 1, H0641: 1, S0144: 1, S0422: 1, S0002: 1, L0371: 1, L0631: 1, L0796: 1, L0639: 1, L0372: 1, L0773: 1, L0386: 1, L0774: 1, L0378: 1, L0653: 1, L0512: 1, L0659: 1, L0809: 1, L5623: 1, L0663: 1, H0520: 1, H0519: 1, H0689: 1, H0670: 1, H0672: 1, H0651: 1, H0539: 1, H0518: 1, H0522: 1, H0696: 1, S0118: 1, L0745: 1, L0756: 1, L0780: 1, L0757: 1, H0595: 1, S0434: 1, L0588: 1, L0592: 1, H0667: 1, H0542: 1 and S0462: 1. AR033: 17, AR055: 16, AR089: 13, AR061: 12, AR052: 9, AR096: 9, AR053: 8, AR060: 8, AR104: 8, AR039: 3	

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H0327: 1, H0546: 1, H0545:
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H0014: 1, H0373: 1, S0388:
1, T0010: 1, H0083: 1,
H0510: 1, H0594: 1, H0266:
1, H0292: 1, H0688: 1,
H0428: 1, H0604: 1, H0031:
1, H0644: 1, H0606: 1,
L0055: 1, H0674: 1, S0364:
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H0135: 1, H0268: 1, H0080:
1, H0100: 1, H0494: 1,
H0396: 1, H0561: 1, H0366:
1, S0294: 1, S0440: 1,
H0509: 1, H0641: 1, S0144:
1, S0422: 1, H0529: 1,
L0369: 1, L0371: 1, L0770:
1, L0372: 1, L0764: 1,
L0768: 1, L0386: 1, L0381:
1, L0774: 1, L0375: 1,
L0378: 1, L0806: 1, L0655:
1, L0657: 1, L0809: 1,
L0788: 1, H0520: 1, H0547:
1, H0519: 1, H0689: 1,
H0670: 1, H0672: 1, H0651:
1, H0539: 1, S0118: 1,
S3014: 1, S0206: 1, L0745:

| 653 | HDTLL66 | 864279 | 663 | 581 - 898 | 2068 | Met-1 to Lys-14, Lys-19 to Cys-25, Pro-27 to Tyr-36, Asn-70 to Lys-78, Leu-96 to Trp-106. | 1, L0780: 1, L0758: 1, L0759: 1, H0595: 1, S0434: 1, L0588: 1, H0653: 1, S0276: 1, H0542: 1, H0543: 1 and S0462: 1.
AR055: 22, AR033: 19, AR061: 16, AR060: 15, AR089: 14, AR052: 9, AR053: 8, AR039: 5, AR096: 5, AR104: 5 | | 36-52, 79-95, 54-70 |
| 654 | HWDAF64 | 864349 | 664 | 75 - 1061 | 2069 | Pro-34 to Cys-39, Thr-155 to Thr-173, Gln-178 to Arg-183, His-209 to Ala-215, Ser-217 to Ser-223, Glu-244 to Pro-250. | AR039: 1, AR033: 1, AR089: 1, AR053: 0, AR052: 0, AR096: 1, AR061: 1, AR060: 1, AR104: 0, AR055: 0
L0769: 3, L0439: 3, L0415: 2, H0255: 2, L0770: 2, L0774: 2, L0663: 2, L0665: 2, L0438: 2, L0777: 2, L0731: 2, L0605: 2, H0580: 1, S0045: 1, S0222: 1, H0441: 1, H0370: 1, H0600: 1, H0333: 1, H0574: 1, H0618: 1, L0738: 1, H0135: 1, H0551: 1, H0413: 1, H0059: 1, H0646: 1, H0538: 1, L0763: 1, L0648: 1, L0766: 1, L0378: 1, | | 223-240, 277-293, 100-116, 185-201 |

655	HETJF10	864357	25 - 393	2070	Lys-116 to Thr-123.	AR089: 3, AR061: 2, AR055: 1, AR052: 1, AR039: 0, AR053: 0, AR104: 0	L0809: 1, L4501: 1, H0593: 1, H0689: 1, H0658: 1, S0432: 1 and S0031: 1. S0342: 1, H0484: 1, S0358: 1, S6022: 1, H0046: 1, L0438: 1, H0593: 1, S0037: 1, L0439: 1 and L0759: 1.	94-114, 66-82, 15-31
656	HBAGJ74	864391	10 - 375	2071	Met-1 to Leu-6, Gly-15 to Gln-22.	AR096: 4, AR039: 4, AR089: 3, AR052: 3, AR053: 3, AR060: 2, AR055: 2, AR033: 2, AR104: 2, AR061: 2 H0411: 2		91-108, 25-41, 52-68
657	HT5EJ85	864392	45 - 551	2072	Pro-10 to Thr-18, Cys-22 to Gly-28, Arg-46 to Arg-51, Pro-53 to Tyr-58.	AR055: 8, AR033: 7, AR052: 7, AR104: 6, AR096: 6, AR060: 5, AR061: 5, AR053: 5, AR089: 5, AR039: 5 H0584: 4, L0783: 4, L0809: 4, L0758: 4, L0769: 3, L0439: 3, H0167: 2, H0295: 2, H0484: 2, H0411: 2, L0764: 2, L0662: 2,		61-80, 88-104

| 658 | HKAKL77 | 864545 | 668 | 25 - 519 | 2073 | Met-1 to Arg-12, Asp-25 to Thr-34, Ala-37 to Pro-46, Leu-72 to Ser-79. | AR104: 46, AR033: 35, AR096: 29, AR052: 22, AR053: 15, AR089: 14, AR039: 13, AR060: 9, AR055: 4, AR061: 2 L0438: 2, L0748: 2, H0422: 2, H0664: 1, S0354: 1, H0619: 1, H0549: 1, H0431: 1, H0013: 1, H0156: 1, S0010: 1, H0123: 1, H0622: 1, T0023: 1, H0553: | L0768: 2, L0438: 2, L0755: 2, L0601: 2, L0603: 2, H0294: 1, S0218: 1, H0657: 1, H0656: 1, L0785: 1, H0341: 1, H0661: 1, S0354: 1, L0717: 1, H0052: 1, H0544: 1, H0545: 1, H0510: 1, H0615: 1, H0628: 1, H0181: 1, H0038: 1, H0059: 1, H0130: 1, L0763: 1, L0770: 1, L0761: 1, L0644: 1, L0773: 1, L0766: 1, L0774: 1, L0378: 1, L0807: 1, L0659: 1, L0666: 1, L0664: 1, S0374: 1, T0068: 1, H0520: 1, S0126: 1, H0435: 1, H0660: 1, H0539: 1, H0521: 1, H0696: 1, H0444: 1 and H0543: 1. | 78-104, 142-164, 116-135, 52-68 |

659	HCFBY67	864566	669	38 - 403	2074	Ile-33 to Asp-46, Pro-51 to Cys-56, Gly-71 to Gly-81.	AR033: 15, AR089: 13, AR053: 9, AR052: 9, AR060: 8, AR055: 7, AR061: 7, AR096: 2, AR039: 0 S0136: 7, S0356: 2, S0410: 2, H0486: 2, H0672: 2, H0422: 2, H0170: 1, H0657: 1, H0692: 1, H0254: 1, H0402: 1, H0305: 1, S0358: 1, H0619: 1, L0717: 1, H0406: 1, H0599: 1, S0010: 1, T0115: 1, H0545: 1, S0051: 1, H0617: 1, H0264: 1, H0100: 1, L0659: 1, L0789: 1, L0665: 1, H0519: 1, H0414: 1, S0406: 1 and H0352: 1.	80-104
							1, H0551: 1, H0494: 1, H0646: 1, H0529: 1, L0766: 1, H0520: 1, H0684: 1, H0672: 1, S0152: 1, H0521: 1, S0406: 1, L0439: 1, L0754: 1, L0756: 1 and S0194: 1.	
660	HUCNL85	864609	670	270 - 899	2075	Gln-11 to Lys-21, Arg-119 to Ser-124.	AR039: 196, AR096: 179, AR052: 167, AR053: 140, AR089: 132, AR060: 86, AR104: 71, AR033: 59,	71-89, 38-54

661	HSDIW17	864772	671	357 - 884	2076	AR055: 35, AR061: 23 H0521: 5, H0370: 3, L0439: 3, H0341: 2, S0420: 2, H0592: 2, H0087: 2, L0792: 2, H0519: 2, S0418: 1, H0619: 1, H0393: 1, S0278: 1, H0392: 1, H0600: 1, H0586: 1, H0497: 1, S0049: 1, H0544: 1, L0471: 1, H0071: 1, H0083: 1, H0266: 1, H0288: 1, H0286: 1, S0036: 1, H0494: 1, S0150: 1, H0593: 1, H0539: 1 and L0759: 1. AR053: 3, AR052: 3, AR096: 3, AR089: 2, AR055: 2, AR060: 1, AR104: 1, AR033: 1, AR061: 1, AR039: 0 S0050: 1, S0028: 1 and S0260: 1.	117-141, 3-30, 39-60, 96-114, 148-166, 73-89
662	HHETS46	864808	672	233 - 574	2077	AR052: 3, AR053: 3, AR096: 2, AR033: 2, AR089: 2, AR039: 1, AR055: 1, AR061: 1, AR060: 1, AR104: 1 L0757: 6, L0775: 4, L0731: 4, H0421: 3, L0774: 3, L0758: 3, S0040: 2,	56-72

663	HAPSD53	864818	673	93 - 1106	2078		84-107
					Asn-9 to Thr-17, Ala-25 to Ser-36, Asn-66 to Tyr-75, Lys-123 to Tyr-145, Asn-154 to Phe-161, Ser-218 to Ala-228, Pro-240 to Ser-247, Thr-273 to Phe-278,	S0376: 2, T0048: 2, L0764: 2, L0809: 2, H0682: 2, S0028: 2, L0748: 2, L0755: 2, L0597: 2, L0588: 2, L0590: 2, H0543: 2, H0170: 1, T0049: 1, S0348: 1, S0420: 1, S0045: 1, S0046: 1, H0411: 1, T0104: 1, L0623: 1, H0486: 1, S0280: 1, H0599: 1, H0575: 1, H0581: 1, S0049: 1, H0183: 1, H0545: 1, H0266: 1, H0288: 1, H0628: 1, H0617: 1, H0090: 1, H0268: 1, H0413: 1, S0210: 1, L0762: 1, L0763: 1, L0770: 1, L0768: 1, L0663: 1, H0690: 1, H0435: 1, H0658: 1, S0380: 1, S0152: 1, H0555: 1, H0436: 1, L0749: 1, L0777: 1, L0753: 1, L0362: 1 and H0423: 1. AR055: 8, AR033: 6, AR089: 5, AR052: 5, AR053: 5, AR061: 4, AR060: 4, AR096: 3, AR104: 3, AR039: 0, L0439: 5, L0794: 4, H0253: 3, L0766: 3, H0618: 2, L0769: 2, L0800: 2,	

					58-83
	Ala-301 to Pro-315, Arg-330 to Ala-338.	L0659: 2, L0789: 2, L0744: 2, L0749: 2, L0758: 2, H0265: 1, H0556: 1, S0360: 1, S0045: 1, S0222: 1, H0592: 1, H0069: 1, H0575: 1, H0318: 1, H0052: 1, H0083: 1, H0615: 1, H0038: 1, H0413: 1, H0494: 1, L0763: 1, L0770: 1, L0771: 1, L0662: 1, L0803: 1, L0378: 1, L0653: 1, L0629: 1, L0809: 1, L0666: 1, L0664: 1, L0438: 1, L0743: 1, L0754: 1, L0747: 1, L0750: 1, L0779: 1, L0777: 1, L0731: 1, L0596: 1, L0588: 1, L0605: 1 and H0352: 1.	AR053: 3, AR052: 3, AR033: 2, AR096: 2, AR089: 2, AR055: 2, AR104: 1, AR060: 1, AR061: 0, AR039: 0 L0754: 12, S0410: 10, L0766: 9, L0591: 7, L0748: 4, L0752: 4, H0423: 4, H0556: 3, S0360: 3, L0646: 3, L0527: 3, L0596: 3, H0170: 2, H0265: 2, S0114: 2, S0218: 2, H0266: 2,	
664	HAMFW6 6	864987	674	158 - 469	2079

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| 665 | HTJMU48 | 865019 | 675 | 20 - 1015 | 2080 | Gly-32 to Asn-51, Trp-72 to Ala-83, | H0615: 2, H0056: 2, H0560: 2, H0561: 2, L0803: 2, L0782: 2, H0547: 2, H0134: 2, H0436: 2, L0756: 2, H0445: 2, L0362: 2, H0543: 2, L0002: 1, H0650: 1, S0418: 1, H0208: 1, S0046: 1, S0476: 1, H0619: 1, H0437: 1, H0550: 1, T0114: 1, H0013: 1, T0048: 1, H0318: 1, L0109: 1, H0050: 1, L0471: 1, S0051: 1, H0083: 1, H0328: 1, H0622: 1, H0604: 1, H0031: 1, H0591: 1, H0551: 1, H0268: 1, H0623: 1, H0100: 1, H0132: 1, L0763: 1, L0667: 1, L0388: 1, L0804: 1, L0776: 1, L0606: 1, L0657: 1, L0659: 1, L0542: 1, L0518: 1, L0809: 1, L0791: 1, L0792: 1, L0793: 1, H0519: 1, H0682: 1, H0648: 1, S0330: 1, S0152: 1, S0406: 1, L0750: 1, L0779: 1, L0757: 1, L0759: 1, L0480: 1, H0542: 1 and H0506: 1. AR033: 5, AR096: 5, AR039: 5, AR053: 4, | 19q13.2-q13.3 | 107741, 113900, | 52-70 |

						Amino acid changes	AR	Chromosome	Accession numbers	
						Thr-137 to Cys-145, Ser-157 to Gly-162, His-176 to Ala-183, Lys-199 to Asn-210, Arg-225 to Gly-230, Asp-248 to Val-254.	AR055: 4, AR052: 3, AR089: 3, AR060: 3, AR104: 2, AR061: 2		122720, 122720, 126340, 126391, 130410, 134790, 138570, 160900, 164731, 173850, 207750, 248600, 258501, 600040, 602225, 602225	
666	HAUAE93	865020	676	73 - 684	2081	Gln-3 to Trp-9, Glu-15 to Asp-25, Asn-59 to Ser-69, Ser-138 to Tyr-145, Glu-147 to Tyr-153.	AR055: 11, AR104: 9, AR061: 6, AR039: 6, AR096: 4, AR033: 9, AR060: 7, AR052: 6, AR089: 5, AR053: 4	19q13.2-q13.3	107741, 113900, 122720, 122720, 126340, 126391, 130410, 134790, 138570, 160900, 164731, 173850, 207750, 248600,	72-93, 34-57, 160-179, 96-116, 185-201

667	HAICK45	865026	677	234 - 1376	2082				258501, 600040, 602225, 602225	219-235, 318-334
						Met-1 to Phe-9, Gln-16 to Gly-25, Val-42 to Thr-71, Asn-92 to Arg-100, Pro-107 to Lys-117, Leu-153 to Leu-163, Phe-176 to Trp-182, Arg-184 to Gln-192, Glu-250 to Gly-257, Phe-266 to Lys-272.	AR055: 7, AR052: 6, AR096: 5, AR060: 5, AR053: 5, AR033: 5, AR089: 4, AR061: 4, AR104: 3, AR039: 2 L0748: 9, L0794: 6, L0766: 6, L0439: 6, H0574: 3, H0040: 3, L0662: 3, L0803: 3, L0740: 3, L0747: 3, H0423: 3, H0624: 2, S0358: 2, H0561: 2, L0598: 2, L0520: 2, L0665: 2, L0777: 2, L0758: 2, L0599: 2, S0106: 2, H0543: 2, H0171: 1, S0134: 1, S0218: 1, S0408: 1, S0132: 1, S0300: 1, H0411: 1, S0222: 1, L0623: 1, H0013: 1, L0021: 1, H0575: 1, H0581: 1, H0545: 1, L0163: 1, H0083: 1, H0032: 1, H0090: 1, H0551: 1, H0264: 1, H0647: 1, H0529: 1, L0770: 1, L0642: 1, L0768: 1, L0364: 1, L0649: 1, L0790: 1, L0666: 1,			

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668	HBJKI39	865163	678	234-536	2083		58-80, 18-38
					Arg-5 to Lys-11, Thr-48 to Ile-53.	AR055: 13, AR033: 7, AR060: 7, AR061: 7, AR053: 6, AR052: 6, AR089: 5, AR096: 5, AR039: 3, AR104: 3 L0777: 9, L0758: 6, H0424: 4, L0770: 4, H0341: 3, H0617: 3, L0749: 3, L0757: 3, H0661: 2, S0358: 2, H0318: 2, S0049: 2, H0598: 2, H0413: 2, L0763: 2, L0766: 2, L0775: 2, L0789: 2, H0696: 2, L0744: 2, L0751: 2, L0747: 2, L0750: 2, L0752: 2, H0170: 1, H0484: 1, S0354: 1, S0046: 1, S0132: 1, H0587: 1, H0331: 1, H0632: 1, H0250: 1, L0021: 1, S0010: 1, H0581: 1, H0085: 1, H0597: 1, H0081: 1, H0012: 1, H0015: 1, H0615: 1, L0142: 1, H0169: 1, H0163: 1, H0616: 1, H0059: 1,	L0663: 1, H0144: 1, H0547: 1, H0684: 1, H0648: 1, H0436: 1, H0478: 1, L0590: 1, L0608: 1, S0026: 1, S0276: 1, S0424: 1 and H0677: 1.

669	HAGHY26	865168	679	257 - 646	2084	Gln-34 to Leu-40, Thr-70 to Gly-92.	H0561: 1, H0633: 1, S0144: 1, S0142: 1, S0210: 1, L0769: 1, L0521: 1, L0768: 1, L0794: 1, L0774: 1, L0375: 1, L0806: 1, L0629: 1, L0659: 1, L0666: 1, S0374: 1, H0689: 1, H0660: 1, H0672: 1, S3012: 1, L0748: 1, L0740: 1, L0755: 1, L0603: 1, H0665: 1, S0192: 1 and H0542: 1.	4-21, 110-126, 46-62
							AR096: 1, AR060: 1, AR089: 1, AR053: 1, AR039: 1, AR061: 0, AR052: 0, AR033: 0, AR104: 0, AR055: 0, H0052: 64, S0010: 22, L0438: 15, S0222: 13, S0346: 12, S6028: 12, L0366: 10, H0261: 9, T0010: 9, S0036: 9, S0049: 7, H0144: 7, L0439: 7, S0300: 6, L0592: 6, L0749: 5, H0438: 4, H0156: 4, S0051: 4, L0686: 4, S0007: 3, S6026: 3, H0194: 3, L0776: 3, S0028: 3, L0750: 3, L0753: 3, L0759: 3, L0589: 3, S6024: 2, H0441: 2, H0013: 2, H0390: 2,	

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670	HCLSJ87	865172	680	40 - 498	2085	Pro-33 to Ser-41, Trp-65 to Ile-72.	H0051: 2, S0388: 2, L0768: 2, L0779: 2, L0684: 2, L0594: 2, L0411: 1, H0170: 1, S0400: 1, S0356: 1, S6016: 1, H0455: 1, N0009: 1, L2250: 1, N0006: 1, H0567: 1, L0471: 1, H0201: 1, L0455: 1, S0038: 1, S0386: 1, L0370: 1, L0638: 1, L0630: 1, L0363: 1, L0774: 1, L0657: 1, S0126: 1, H0696: 1, L0745: 1, L0755: 1, L0758: 1, L0688: 1, S0106: 1, H0667: 1, S0412: 1 and S0021: 1. AR039: 2, AR052: 1, AR104: 1, AR060: 1, AR089: 1, AR033: 0, AR053: 0, AR061: 0, AR096: 0, AR055: 0 (109-130)
671	HJBAQ50	865176	681	39 - 404	2086		AR096: 3, AR033: 1, AR060: 1, AR052: 1, AR089: 1, AR061: 1, AR039: 0, AR053: 0, AR104: 0, AR055: 0 L0439: 6, L0438: 3, S0222: 2, H0271: 2, L0758: 2, S0001: 1, H0441: 1, (80-97)

| 672 | HTELJ31 | 865259 | 682 | 332 – 808 | 2087 | Trp-7 to Gln-15. | AR061: 6, AR055: 5, AR033: 4, AR060: 4, AR053: 3, AR096: 3, AR089: 3, AR052: 3, AR039: 0 L0769: 7, L0754: 7, L0748: 6, L0777: 6, L0759: 5, L0803: 4, L0747: 4, H0041: 3, L0775: 3, S0420: 2, S0358: 2, H0013: 2, H0427: 2, L0794: 2, L0804: 2, L0659: 2, L0789: 2, L0751: 2, L0749: 2, L0752: 2, L0587: 2, L0599: 2, L0603: 2, H0255: 1, S0356: 1, S0045: 1, H0411: 1, H0441: 1, H0009: 1, H0081: 1, H0024: 1, H0014: 1, T0006: 1, H0616: 1, L0536: 1, L0770: 1, L0638: 1, L0761: 1, L0771: 1, L0662: 1, L0767: 1, L0774: 1, L0375: 1, L0653: 1, L0633: 1, L0629: 1, L0636: 1, L0783: 1, L0666: 1, L0665: 1, S0052: 1, H0672: 1, H0436: 1, L0758: 1, S0260: 1. S0010: 1, H0052: 1, S0050: 1, S0366: 1, T0042: 1, S0428: 1 and H0547: 1. | 95-111, 38-54, 77-93 |

| 673 | HPJBE61 | 865275 | 683 | 55 - 495 | 2088 | Asp-12 to Pro-17, Ser-59 to Glu-66, Leu-102 to Gly-119, Pro-130 to Trp-143. | AR055: 11, AR096: 7, AR061: 6, AR039: 6, AR052: 5, AR060: 5, AR033: 5, AR089: 4, AR053: 4, AR104: 3 L0751: 7, L0758: 5, L0766: 4, H0250: 3, H0556: 2, H0544: 2, L0769: 2, L0747: 2, H0422: 2, H0265: 1, S0114: 1, S0134: 1, S0116: 1, H0663: 1, S0132: 1, H0586: 1, H0069: 1, H0427: 1, H0309: 1, H0150: 1, H0041: 1, H0510: 1, H0594: 1, S0022: 1, H0606: 1, S0036: 1, H0087: 1, T0042: 1, H0494: 1, L0475: 1, S0438: 1, H0641: 1, S0422: 1, L0771: 1, L0662: 1, L0655: 1, L0783: 1, L0792: 1, L0663: 1, H0672: 1, H0539: 1, S0152: 1, H0187: 1, L0750: 1, H0445: 1, S0434: 1, H0542: 1 and S0424: 1. 1, L0581: 1, L0604: 1, L0595: 1, L0361: 1 and S0192: 1. | | | 15-47, 71-102 |
| 674 | HLTCU22 | 865293 | 684 | 47 - 730 | 2089 | Ser-83 to Gly-88, | AR052: 66, AR053: 56, | | | 178-196, |

	89-105, 157-173
Pro-130 to Asn-137.	AR089: 32, AR055: 26, AR096: 24, AR039: 24, AR061: 18, AR060: 17, AR033: 14, AR104: 13 H0031: 4, L0794: 4, L0805: 4, H0419: 3, L0369: 3, L0776: 3, H0556: 2, H0657: 2, H0662: 2, L0766: 2, L0774: 2, L0790: 2, L0438: 2, S0126: 2, H0521: 2, S0028: 2, L0439: 2, L0747: 2, S0011: 2, H0265: 1, H0294: 1, S0001: 1, S0418: 1, S0420: 1, S0376: 1, S0360: 1, S0045: 1, S0222: 1, H0486: 1, H0013: 1, H0427: 1, H0309: 1, H0024: 1, S0388: 1, T0023: 1, H0212: 1, H0124: 1, H0090: 1, H0334: 1, S0440: 1, H0633: 1, L0371: 1, L0769: 1, L0772: 1, L0764: 1, L0363: 1, L0768: 1, L0653: 1, L0655: 1, L0807: 1, L0783: 1, L0789: 1, H0144: 1, H0702: 1, H0519: 1, H0690: 1, H0658: 1, H0670: 1, H0660: 1, S0044: 1, H0215: 1, L0748: 1, L0740: 1, L0746: 1, L0750:

675	HE8DZ49	865322	685	300 - 1565	2090			366-396
						Lys-20 to Ser-27, Met-62 to Asp-75, Asp-85 to Gln-94, Glu-135 to Arg-160, Asn-195 to Glu-202, Ser-291 to Ser-298, Thr-314 to Leu-332, Pro-342 to Ser-351, Glu-357 to Arg-365.	AR096: 18, AR053: 15, AR033: 14, AR052: 14, AR060: 14, AR055: 13, AR089: 11, AR104: 10, AR061: 6, AR039: 5 L0731: 9, L0803: 8, L0749: 8, L0748: 5, L0439: 5, L0756: 4, L0759: 4, H0581: 3, L0766: 3, L0747: 3, H0013: 2, H0427: 2, H0052: 2, H0251: 2, H0050: 2, L0794: 2, L0789: 2, L0665: 2, L0777: 2, L0758: 2, L0599: 2, S0134: 1, S0442: 1, S0358: 1, H0411: 1, H0261: 1, H0431: 1, H0455: 1, H0574: 1, H0486: 1, S0010: 1, H0439: 1, H0569: 1, H0014: 1, H0375: 1, H0124: 1, S0036: 1, H0038: 1, S0210: 1, L0371: 1, L0521: 1, L0774: 1, L0809: 1, S0374: 1, L0438: 1, H0696: 1, S0044: 1, 1, L0756: 1, L0777: 1, L0759: 1, L0596: 1, L0589: 1, L0591: 1, L0599: 1, L0595: 1, L0601: 1, S0026: 1, H0542: 1, S0042: 1 and S0424: 1.	

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676	HEGAC86	865369	511 - 858	2091	Met-1 to Ala-13, Gly-29 to Trp-34, Pro-36 to Ala-42, Ser-70 to Cys-75.	H0436: 1, S0390: 1, L0750: 1, L0752: 1, S0276: 1, H0543: 1 and H0423: 1. AR055: 9, AR033: 7, AR060: 4, AR089: 4, AR052: 4, AR061: 4, AR096: 3, AR053: 3, AR039: 1, AR104: 0 L0776: 3, L0758: 3, L0764: 2, L0803: 2, L0805: 2, H0522: 2, L0748: 2, L0777: 2, H0550: 1, L0468: 1, S0280: 1, S0010: 1, L0471: 1, L0804: 1, L0657: 1, L0665: 1, S0126: 1, L0743: 1, L0750: 1, L0756: 1 and L0780: 1.	16q22	103850, 114835, 121360, 217800, 218030	90-106
677	HOUDS89	866090	20 - 559	2092	Glu-2 to Arg-14, Tyr-134 to Asp-140, Gln-151 to Asn-158.	AR052: 9, AR096: 7, AR060: 5, AR089: 5, AR053: 5, AR039: 4, AR055: 4, AR033: 4, AR104: 3, AR061: 3 L0769: 6, L0809: 4, H0585: 3, H0617: 3, H0181: 2, L0763: 2, L0768: 2, L0803: 2, L0805: 2, L0789: 2, S0040: 1, H0282: 1, L0796: 1, L0800: 1, L0794: 1, L0653: 1, L0776: 1,			46-72, 80-98, 111-127, 16-32

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| 678 | HCEVF41 | 866297 | 688 | 172 - 1149 | 2093 | Gln-49 to Glu-54, Gln-67 to Ile-74. | L0792: 1, L0793: 1, H0576: 1 and L0759: 1.

AR039: 7, AR053: 5, AR096: 5, AR104: 3, AR089: 3, AR061: 3, AR060: 3, AR033: 2, AR052: 1, AR055: 1
H0618: 9, L0758: 9, H0253: 5, H0620: 3, L0439: 3, L0747: 3, H0255: 2, S0356: 2, H0617: 2, L0770: 2, S0028: 2, L0756: 2, L0361: 2, H0624: 1, S0040: 1, H0295: 1, H0656: 1, S0358: 1, S0444: 1, S0360: 1, S0045: 1, H0261: 1, S0222: 1, H0392: 1, H0085: 1, H0597: 1, H0545: 1, H0150: 1, H0009: 1, H0012: 1, H0606: 1, H0165: 1, H0598: 1, H0135: 1, H0272: 1, S0448: 1, L0644: 1, L0764: 1, L0767: 1, L0806: 1, L0809: 1, L0664: 1, S0374: 1, S0126: 1, H0670: 1, H0696: 1, S0037: 1, L0742: 1, L0740: 1, L0750: 1, L0777: 1, L0780: 1, L0731: 1, S0011: 1, H0667: 1, S0398: 1 and S0462: 1. | 126-150, 274-300, 155-174, 18-39, 202-226, 1-17, 92-108, 243-259 |

679	HPWBO25	866302	689	62 - 694	2094	Pro-72 to Met-78.	AR089: 1, AR053: 1, AR033: 1, AR060: 1, AR039: 0, AR061: 0, AR096: 0, AR055: 0, AR052: 0, AR104: 0 L0604: 2, H0255: 1, H0018: 1, S0366: 1, S0044: 1, S0037: 1, S0028: 1 and S0031: 1.	150-183, 96-135, 76-95, 117-135, 54-70
680	HSKNJ56	866374	690	15 - 593	2095	Leu-37 to Lys-43, Pro-177 to Thr-184.	AR061: 3, AR096: 3, AR033: 2, AR060: 1, AR089: 1, AR052: 1, AR055: 1, AR104: 0, AR039: 0, AR053: 0 L0439: 5, L0435: 2, H0624: 1, S3012: 1, S3014: 1, L0747: 1 and L0749: 1.	103-123, 161-177
681	HSSKF43	866388	691	118 - 744	2096		AR089: 8, AR096: 7, AR104: 7, AR055: 6, AR060: 6, AR039: 6, AR052: 6, AR033: 5, AR053: 5, AR061: 3 L0665: 3, L0598: 2, L0519: 2, L0663: 2, L0754: 2, L0747: 2, H0265: 1, S0134: 1, H0640: 1, H0409: 1, H0581: 1, L0471: 1, H0135: 1, L0435: 1, H0509: 1, L0800: 1, L0803: 1,	84-109, 148-171, 6-24, 27-43, 174-190, 192-208

| 682 | HSKJK72 | 866398 | 692 | 13 - 429 | 2097 | Gln-35 to Gly-45, Cys-113 to Val-123. | S0374: 1, L0438: 1, H0520: 1 and L0592: 1. AR055: 9, AR060: 6, AR052: 6, AR089: 5, AR061: 5, AR033: 5, AR053: 4, AR096: 4, AR039: 2, AR104: 2 H0545: 1 and S3014: 1. | | 61-82 |
| 683 | HACBC20 | 866413 | 693 | 291 - 635 | 2098 | | AR052: 11, AR096: 6, AR053: 5, AR089: 5, AR060: 4, AR033: 4, AR061: 4, AR055: 4, AR039: 3, AR104: 3 L0805: 6, L0770: 5, L0803: 5, L0777: 5, L0776: 3, L0740: 3, L0750: 3, L0759: 3, H0599: 2, T0041: 2, H0670: 2, L0439: 2, L0747: 2, H0341: 1, S0418: 1, S0280: 1, H0318: 1, H0014: 1, S0250: 1, H0252: 1, H0328: 1, H0087: 1, H0494: 1, H0633: 1, L0763: 1, L0796: 1, L0651: 1, L0657: 1, L0558: 1, L0809: 1, L0789: 1, L0790: 1, L0666: 1, L0663: 1, H0519: 1, H0689: 1, H0710: 1, S0152: 1, S3014: 1, L0755: | | 1-35, 31-60, 74-107 |

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684	HSDIS65	866560	694	71 - 961	2099	1, H0445: 1, S0436: 1, L0599: 1, H0423: 1 and H0352: 1.	AR104: 20, AR033: 16, AR055: 10, AR096: 10, AR053: 10, AR052: 10, AR089: 7, AR060: 7, AR039: 5, AR061: 5 L0756: 7, L0777: 4, H0051: 3, S0003: 3, S0036: 3, S0408: 2, L0770: 2, L0546: 2, L0779: 2, L0596: 2, S0282: 1, S0358: 1, S0278: 1, H0574: 1, H0427: 1, H0590: 1, H0327: 1, H0622: 1, H0130: 1, L0771: 1, L0659: 1, L0665: 1, H0670: 1, H0521: 1, S0037: 1, L0742: 1, L0758: 1 and S0260: 1.		268-297, 30-50, 219-236, 142-161, 242-259, 189-205, 1-17
685	HHFEL55	866610	695	1698 - 1216	2100	Ser-4 to Pro-12,	AR033: 96, AR052: 86, AR104: 71, AR053: 68, AR089: 60, AR055: 47, AR096: 45, AR060: 35, AR061: 20, AR039: 15 H0620: 2, H0486: 1, H0050: 1, H0012: 1 and H0083: 1.	3q21-q25	135-154
686	HSIDL28	866611	696	43 - 546	2101		AR052: 29, AR053: 26,	106165,	149-167,

40-58			
	117700, 117700, 150210, 169600, 180380, 180380, 180380, 190000, 203500, 222900, 232050, 276902, 600882, 601199, 601199, 601199, 601471, 601682	AR089: 21, AR033: 21, AR096: 20, AR060: 15, AR055: 15, AR104: 12, AR039: 8, AR061: 7 L0769: 10, L0766: 10, L0764: 7, L0751: 7, L0794: 6, L0743: 6, L0747: 6, L0757: 6, L0809: 5, L0748: 5, L0779: 5, H0052: 4, L0768: 4, L0803: 4, L0666: 4, H0170: 3, S0114: 3, L0774: 3, H0543: 3, H0254: 2, H0662: 2, H0370: 2, S0280: 2, H0318: 2, L0109: 2, H0123: 2, H0188: 2, H0687: 2, H0424: 2, H0031: 2, H0038: 2, H0494: 2, L0761: 2, L0772: 2, L0800: 2, L0662: 2, L0775: 2, L0805: 2, L0776: 2, L0664: 2, H0670: 2, L0750: 2, L0605: 2, L0592: 2, H0542: 2, H0624: 1, H0265: 1, H0650: 1, H0255: 1, H0661: 1, H0306: 1, H0305: 1, S0442: 1, S0376: 1, S0360: 1, H0580: 1, H0722: 1, H0351: 1, S0222: 1, H0592: 1, H0331: 1, H0486: 1, H0013: 1, H0036: 1, S0474:	Pro-20 to Lys-30, Ser-59 to Phe-64, Pro-85 to Pro-91, Pro-118 to Gly-126, Thr-128 to Asp-143.

| 687 | HELDT78 | 866684 | 697 | 1814 - 3 | 2102 | 1, T0110: 1, H0545: 1, H0009: 1, H0081: 1, H0050: 1, L0471: 1, H0012: 1, T0010: 1, H0083: 1, H0271: 1, H0290: 1, H0328: 1, H0615: 1, H0428: 1, S0368: 1, H0033: 1, H0617: 1, S0364: 1, H0135: 1, H0087: 1, H0264: 1, T0041: 1, H0131: 1, H0646: 1, L0598: 1, L0763: 1, L5575: 1, L5565: 1, L0363: 1, L0767: 1, L0649: 1, L5564: 1, L0375: 1, L0806: 1, L0655: 1, L0527: 1, L0657: 1, L0542: 1, L0783: 1, L0791: 1, L0793: 1, L0663: 1, S0052: 1, L0438: 1, H0520: 1, S0126: 1, H0690: 1, H0682: 1, H0684: 1, S0378: 1, H0710: 1, H0521: 1, H0522: 1, S0044: 1, H0134: 1, S0406: 1, H0436: 1, H0576: 1, L0749: 1, L0777: 1, L0758: 1, L0759: 1, L0599: 1, H0423: 1 and H0677: 1. AR055: 2, AR096: 1, AR104: 1, AR060: 1, AR089: 1, AR033: 1, | | | 149-168, 519-537, 102-118, |

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							AR061: 1, AR039: 0, AR052: 0, AR053: 0, S0001: 2, H0059: 2, S0031: 2, S0282: 1, S0045: 1, H0619: 1, H0574: 1, S0050: 1, H0124: 1, S0144: 1, S0053: 1, S0044: 1, S0390: 1 and S0260: 1.	438-454, 56-72, 500-516, 1-17
688	HCMTA51	866733	698	21 - 743	2103		AR039: 42, AR104: 21, AR033: 20, AR055: 18, AR096: 17, AR053: 16, AR052: 15, AR089: 14, AR060: 12, AR061: 11, H0486: 1, H0230: 1 and S0260: 1.	103-128, 12-28, 61-77, 137-153
689	HSAZG23	866813	699	135 - 467	2104		AR089: 36, AR096: 27, AR053: 21, AR033: 20, AR060: 19, AR052: 18, AR039: 16, AR055: 12, AR104: 8, AR061: 5, L0523: 2, S0114: 1, L0748: 1 and L0749: 1.	58-75, 27-44
690	HATDH85	866832	700	35 - 556	2105	Glu-3 to Arg-17, Ser-44 to Asp-50, Arg-107 to Gly-117.	AR089: 8, AR060: 7, AR055: 6, AR052: 5, AR033: 4, AR053: 4, AR061: 4, AR096: 3, AR104: 2, AR039: 1 L0748: 9, L0605: 6, H0031: 4, S0126: 4, L0754:	149-174, 117-136, 88-105

691	HTXNU58	866980	701	1158 - 1478	2106	Glu-5 to Trp-12, Leu-54 to Thr-59.	4, S0046: 3, H0052: 2, S0422: 2, L0803: 2, L0666: 2, L0663: 2, S0330: 2, S3014: 2, L0750: 2, H0686: 1, H0346: 1, S0420: 1, H0619: 1, H0431: 1, H0156: 1, H0575: 1, H0590: 1, H0581: 1, H0046: 1, H0123: 1, H0050: 1, H0373: 1, H0083: 1, H0266: 1, H0553: 1, H0628: 1, H0598: 1, S0036: 1, H0100: 1, H0494: 1, H0561: 1, S0440: 1, L0662: 1, L0794: 1, L0381: 1, L0650: 1, L0776: 1, L0540: 1, L0791: 1, H0144: 1, S0328: 1, S0152: 1, H0696: 1, S0406: 1, L0752: 1, S0260: 1, S0436: 1, L0604: 1, L0593: 1, S0242: 1 and H0543: 1. AR096: 8, AR052: 8, AR055: 7, AR060: 5, AR089: 4, AR033: 4, AR039: 4, AR104: 4, AR061: 4, AR053: 3 L0743: 5, L0758: 5, H0657: 4, S0410: 4, L0769: 4, L0749: 4, L0777: 4, H0556: 3, L0770: 3, L0794:			85-106, 25-41

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2, H0616: 2, L0772: 2,
L0662: 2, L0766: 2, L0804:
2, L0659: 2, L0809: 2,
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2, S0328: 2, H0555: 2,
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2, L0759: 2, L0596: 2,
H0543: 2, H0423: 2, S0040:
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H0650: 1, L0785: 1, S0116:
1, H0661: 1, H0664: 1,
S0360: 1, H0580: 1, S0132:
1, S0278: 1, H0437: 1,
H0486: 1, H0013: 1, H0069:
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H0050: 1, H0099: 1, H0292:
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1, T0042: 1, H0494: 1,
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1, S0210: 1, L0761: 1,
L0626: 1, L0768: 1, L0774:
1, L0806: 1, L0655: 1,
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1, L0665: 1, H0520: 1,
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692	HHSFI65	867000	702	67 - 846	2107		11			185-202, 135-157, 153-169, 98-114
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						AR033: 54, AR104: 48, AR052: 26, AR089: 25, AR053: 23, AR055: 22, AR096: 19, AR060: 18, AR039: 17, AR061: 11 L0659: 10, T0040: 9, L0665: 9, L0759: 9, L0519: 8, S0418: 7, L0776: 7, L0749: 7, L0744: 6, L0747: 6, L0758: 6, S0046: 5, H0052: 5, H0545: 5, H04457: 5, H0150: 5, L0769: 5, L0766: 5, L0748: 5, H0265: 4, S0420: 4, S0356: 4, S0360: 4, S0010: 4, H0494: 4, L0662: 4, L0768: 4, L0774: 4, L0775: 4, S0406: 4, L0751: 4, L0754: 4, L0779: 4, H0295: 3, H0484: 3, S0476: 3, H0549: 3, S0222: 3, H0575: 3, H0618: 3, H0581: 3, H0421: 3, H0620: 3, S0051: 3, H0687: 3, H0428: 3, S0440: 3, L0764: 3, L0666: 3, H0435:				

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S0358: 2, S0376: 2, S0408:
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2, H0009: 2, S0388: 2,
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2, L0641: 2, L0806: 2,
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1, S0110: 1, S0282: 1,
H0483: 1, H0638: 1, H0637:
1, S0468: 1, H0550: 1,
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H0250: 1, H0069: 1, H0706:
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H0373: 1, H0239: 1, H0594:
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S0210: 1, S0002: 1, H0529:
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1, L0646: 1, L0374: 1,
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L0807: 1, L0657: 1, L0658:
1, L0656: 1, L0782: 1,
L0783: 1, L0530: 1, L0647:
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H0547: 1, S0126: 1, H0659:
1, S0328: 1, S0380: 1,
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693	HRADG27	867187	703	194 - 526	2108		1, S3014: 1, S0028: 1, L0439: 1, L0740: 1, L0756: 1, L0786: 1, L0780: 1, L0755: 1, H0445: 1, S0434: 1, S0436: 1, L0581: 1, L0595: 1, L0601: 1, H0667: 1, S0192: 1, H05542: 1 and S0424: 1.	33-50, 64-80
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694	HWBCE30	867206	704	23 - 388	2109		AR039: 40, AR096: 24, AR053: 23, AR033: 21, AR104: 19, AR052: 16, AR089: 16, AR055: 15, AR060: 12, AR061: 7 H0580: 1, S0222: 1, H0271: 1, H0687: 1, H0488: 1, H0555: 1 and S0436: 1.	65-82, 106-122
695	HBGOF57	867330	705	528 - 187	2110	Pro-36 to Ser-43, Ala-75 to Asp-81.	AR104: 21, AR033: 8, AR055: 6, AR060: 6, AR052: 5, AR061: 5, AR096: 2, AR089: 2, AR039: 1, AR053: 0 L0747: 15, L0769: 14, L0789: 11, L0750: 11,	82-98, 56-72

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L0766: 10, L0759: 8,
L0761: 6, L0805: 5, L0776: 5, H0170: 3, S0356: 3,
S0422: 3, L0375: 3, L0663: 3, L0438: 3, L0755: 3,
H0656: 2, H0333: 2, H0559: 2, S0474: 2, H0622: 2,
H0494: 2, L0771: 2, L0794: 2, L0774: 2, L0807: 2,
L0665: 2, H0144: 2, H0547: 2, S0328: 2, L0744: 2,
L0748: 2, L0754: 2, L0749: 2, L0780: 2, L0752: 2,
L0753: 2, L0731: 2, L0757: 2, S0436: 2, H0422: 2,
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H0483: 1, L0619: 1, S0360: 1, H0580: 1, S0007: 1,
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L0021: 1, H0085: 1, T0115: 1, H0546: 1, H0012: 1,
T0003: 1, H0024: 1, S0362: 1, S0051: 1, H0275: 1,
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696	HAPNX79	867380	706	345 - 1085	2111		
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714	HMKCV39	868004	724	25 - 354	2129	Ala-3 to Gly-9.	S0194: 1. AR096: 5, AR053: 4, AR089: 3, AR039: 3, AR052: 3, AR033: 3, AR060: 3, AR104: 2, AR061: 2, AR055: 1 H0295: 6, L0758: 6, H0545: 4, L0754: 4, L0759: 3, H0170: 2, H0255: 2, L0766: 2, L0649: 2, L0665: 2, H0696: 2, H0177: 1, H0549: 1, H0392: 1, H0587: 1, H0333: 1, H0327: 1, L0695: 1, H0328: 1, H0674: 1, H0616: 1, S0142: 1, H0529: 1, L0762: 1, L0769: 1, L0800: 1, L0658: 1, L0659: 1, L0783: 1, L0809: 1, L0528: 1, H0547: 1, S0136: 1, S0390: 1, L0740: 1, L0747: 1, L0777: 1 and L0752: 1.	51-72, 24-40
715	HNTOE45	868031	725	10 - 516	2130		AR089: 7, AR033: 6, AR060: 6, AR096: 5, AR039: 3, AR052: 3, AR053: 3, AR055: 2, AR104: 2, AR061: 2 L0527: 2, H0657: 1, H0341: 1, S0222: 1, H0438:	12-35, 49-70, 123-140, 142-158, 90-106

716	HCUFV69	868130	726	4 - 357	2131		
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| 717 | HMVCZ54 | 868140 | 727 | 203 – 877 | 2132 | Gly-4 to Cys-14. | H0581: 1, H0457: 1, H0354: 1, H0247: 1, H0271: 1, L0055: 1, S0036: 1, S0438: 1, H0646: 1, L0770: 1, L0769: 1, L0764: 1, L0375: 1, L0787: 1, S0053: 1, S0374: 1, H0682: 1, H0648: 1, H0710: 1, L0744: 1, L0755: 1, L0731: 1, L0758: 1, L0603: 1, H0423: 1 and H0352: 1. AR061: 20, AR039: 18, AR053: 15, AR055: 15, AR052: 14, AR033: 13, AR096: 13, AR089: 13, AR104: 12, AR060: 11 L0748: 9, S0422: 6, L0752: 5, S0196: 5, S0212: 4, L0803: 4, L0754: 4, L0749: 4, L0599: 4, S0242: 4, L0790: 3, L0439: 3, L0779: 3, S0360: 2, L0105: 2, H0046: 2, S0003: 2, L0794: 2, L0766: 2, L0775: 2, L0655: 2, L0565: 2, L0352: 2, H0521: 2, L0750: 2, L0777: 2, L0731: 2, L0758: 2, S0436: 2, S0026: 2, H0543: 2, H0624: 1, H0171: 1, S0116: 1, H0483: 1 | 24-52, 152-174, 74-90, 184-200, 130-146, 106-122, 54-70 |

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AR053: 2, AR096: 2,
AR104: 1, AR061: 1,
AR055: 0
H0271: 1, S0002: 1 and
L0766: 1.

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H0580: 1, S0045: 1, S0046:
1, H0643: 1, H0574: 1,
T0040: 1, H0052: 1, H0083:
1, H0553: 1, H0708: 1,
S0036: 1, H0135: 1, H0591:
1, H0038: 1, H0641: 1,
L0769: 1, L0639: 1, L0806:
1, L0659: 1, L0809: 1,
L0793: 1, L0438: 1, S0126:
1, H0672: 1, H0539: 1,
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120575,
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133200,
138140,
138971,
168360,
171760,
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172411,
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178300,
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719	HAPTE80	868238	729	150 - 1091	2134	Ser-15 to Leu-22, Glu-166 to Glu-173, Lys-181 to Met-186.	AR052: 8, AR055: 8, AR033: 6, AR053: 5, AR060: 5, AR089: 4, AR096: 4, AR061: 3, AR104: 2, AR039: 1 H0144: 3, S0114: 1, H0619: 1, T0114: 1, H0575: 1, L0483: 1, H0435: 1, H0539: 1, L0439: 1, L0588: 1 and L0592: 1.	230000, 230350, 255800, 602771	70-89, 32-49, 91-107
720	HSLJC72	868253	730	74 - 412	2135	Tyr-10 to Asp-15, Asp-64 to Gly-72, Gln-74 to Lys-85.	AR052: 866, AR096: 756, AR089: 424, AR060: 372, AR053: 278, AR104: 179, AR033: 176, AR039: 159, AR061: 108, AR055: 30		15-41, 41-63, 86-107
721	HWBCR21	868312	731	173 - 514	2136	Phe-95 to Glu-105.	AR053: 4, AR052: 4, AR096: 4, AR039: 4, AR033: 3, AR089: 3, AR060: 2, AR104: 2, AR055: 2, AR061: 1 S0408: 1, H0580: 1, H0486: 1, H0012: 1, L0794: 1, L0803: 1, L0805: 1, L0790: 1, L0792: 1 and		67-95, 1-19, 52-68, 24-40

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| 723 | HOSCJ09 | 868369 | 733 | 42 - 659 | 2138 | Asn-38 to Phe-46. | AR055: 12, AR053: 11, AR033: 10, AR052: 10, AR039: 10, AR060: 10, AR096: 9, AR104: 8, AR089: 8, AR061: 6 L0439: 7, L0805: 4, S0003: 2, L0438: 2, S0114: 1, L0415: 1, S0358: 1, H0580: 1, H0619: 1, H0013: 1, H0036: 1, S0474: 1, H0251: 1, S0388: 1, L0761: 1, L0667: 1, L0794: 1, | | 16-35, 159-176, 55-71, 101-117, 138-154 |

724	HWBAE15	868370	734	746 - 1093	2139	Asn-53 to Phe-61.	AR052: 1, AR053: 1, AR033: 1, AR061: 0, AR039: 0, AR089: 0, AR096: 0, AR104: 0, AR060: 0, AR055: 0, L0438: 4, L0439: 4, S0003: 3, L0805: 3, L0415: 2, S0114: 1, S0358: 1, H0580: 1, H0619: 1, H0013: 1, H0036: 1, S0474: 1, H0251: 1, S0388: 1, L0761: 1, L0667: 1, L0794: 1, L0523: 1, L0776: 1, L0659: 1, L0809: 1, L0787: 1, L0790: 1, L0666: 1, H0593: 1, H0711: 1, L0756: 1, L0779: 1, L0755: 1 and H0423: 1.	L0523: 1, L0776: 1, L0659: 1, L0809: 1, L0787: 1, L0790: 1, L0666: 1, H0593: 1, H0711: 1, L0756: 1, L0779: 1, L0755: 1, L0591: 1 and H0423: 1.	31-50, 70-86
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726	HWAET91	868475	736	201 - 641	2141	Ser-35 to Gln-42, Ser-94 to Glu-101.	H0581: 1 and S0250: 1. AR096: 3, AR089: 2, AR039: 2, AR052: 2, AR060: 2, AR053: 1, AR033: 1, AR061: 1, AR055: 1, AR104: 1 H0581: 1, L0766: 1 and L0749: 1.		55-81, 123-141, 79-95, 43-59, 18-34
727	HDPMO69	868484	737	120 - 941	2142	Ser-12 to Tyr-18, Glu-34 to Val-45, Pro-71 to Asn-76, Tyr-84 to Lys-95, Thr-153 to Tyr-158, Glu-241 to Tyr-250, Asp-252 to Gln-263.	AR060: 1, AR096: 1, AR089: 1, AR104: 1, AR055: 1, AR061: 1, AR053: 0, AR033: 0, AR039: 0, AR052: 0 S0036: 2, L0754: 2, L0596: 2, T0049: 1, H0632: 1, H0069: 1, H0098: 1, H0581: 1, H0375: 1, L0794: 1, L0766: 1, L0803: 1, H0519: 1, H0660: 1, H0521: 1, H0522: 1, L0745: 1, S0196: 1 and H0423: 1.		93-120, 215-231
728	HELHM41	868568	738	322 - 1812	2143	Met-1 to Arg-7, Leu-11 to Lys-18, Ser-25 to Trp-33, Asn-67 to Asn-73, Glu-133 to Leu-147.	AR055: 8, AR060: 5, AR052: 5, AR033: 4, AR053: 4, AR039: 4, AR089: 3, AR096: 3, AR061: 2, AR104: 2 L0748: 11, L0438: 4, L0758: 4, H0038: 3, H0521: 3, L0731: 3, S0222: 2,		102-122, 150-166, 275-291, 393-409, 244-260, 170-186

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733	HTEQK83	868928	743	500 - 931	2148				75-103, 28-53, 116-132
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734	HULFK26	868929	744	141 - 839	2149		
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AR052: 19, AR053: 18, AR089: 16, AR096: 13, AR055: 13, AR060: 12, AR033: 12, AR104: 8, AR039: 7, AR061: 7 H0253: 2, H0520: 2, S0126: 2, L0759: 2, H0556: 1, H0657: 1, S0116: 1, H0450: 1, S0046: 1, H0492: 1, S0049: 1, H0123: 1, H0050: 1, S0036: 1, H0494: 1, H0435: 1, H0670: 1, H0539: 1 and L0731: 1. | | | 198-214, 285-301 |
| 750 | HTEHC92 | 869786 | 760 | 52 - 456 | 2165 | Met-1 to Lys-8, Arg-20 to Leu-29, Lys-55 to Leu-63, Ser-77 to Gly-83, Pro-126 to Phe-135. | AR055: 7, AR060: 4, AR039: 4, AR052: 4, AR033: 4, AR089: 4, AR104: 4, AR061: 3, AR053: 3, AR096: 2 H0253: 4, H0038: 4, L0794: 4, L0748: 4, L0754: 4, H0677: 4, H0618: 3, H0616: 3, L0806: 3, L0758: 3, H0013: 2, S0150: 2, | | | 100-118, 62-78 |

751	HTFOL05	869816	761	2003 - 1422	2166	Glu-7 to Phe-12, Pro-49 to Phe-56, Gly-65 to Val-71.	L0665: 2, L0439: 2, H0661: 1, S0418: 1, S0410: 1, S0007: 1, S6026: 1, S0300: 1, L0717: 1, H0050: 1, H0266: 1, H0622: 1, L0769: 1, L0637: 1, L0372: 1, L0805: 1, L0776: 1, L0790: 1, S0328: 1, S0206: 1, L0589: 1, H0665: 1 and H0422: 1. AR039: 1, AR104: 1, AR096: 0, AR061: 0, AR053: 0, AR055: 0, AR089: 0, AR060: 0, AR033: 0 L0591: 10, H0622: 5, S0422: 3, L0803: 3, L0438: 3, L0750: 3, S0134: 2, H0663: 2, H0599: 2, H0050: 2, H0687: 2, L0764: 2, L0662: 2, L0766: 2, L0748: 2, L0779: 2, L0777: 2, L0599: 2, S0196: 2, H0265: 1, H0556: 1, H0662: 1, L0481: 1, S0356: 1, H0580: 1, S0046: 1, S0300: 1, S0222: 1, H0431: 1, H0574: 1, S0474: 1, H0052: 1, H0309: 1, H0083: 1, H0428: 1, H0031: 1, H0644: 1,	166-191

| 752 | HTPDV70 | 869874 | 762 | 67 - 501 | 2167 | His-2 to Gln-16, Gly-23 to Ser-28, Met-40 to Asn-45, Gln-76 to Leu-91. | H0628: 1, L0055: 1, H0038: 1, H0616: 1, H0560: 1, H0529: 1, L0372: 1, L0768: 1, L0794: 1, L0519: 1, L0666: 1, L0665: 1, S0216: 1, H0144: 1, S0330: 1, H0518: 1, S0332: 1, S0146: 1, H0555: 1, S0027: 1, L0439: 1, L0754: 1, L0756: 1, L0731: 1, L0595: 1, S0194: 1, H0543: 1, H0423: 1 and S0424: 1. | AR053: 16, AR096: 14, AR052: 14, AR055: 12, AR089: 9, AR060: 8, AR033: 6, AR061: 6, AR104: 4, AR039: 4, H0591: 2, H0521: 2, S0046: 1, S0010: 1, H0039: 1, H0641: 1, H0519: 1 and H0543: 1. | | | 58-74, 114-130 |
| 753 | HLYGH73 | 869917 | 763 | 808 - 2 | 2168 | Pro-18 to Leu-46. | | AR033: 6, AR089: 4, AR060: 4, AR061: 3, AR039: 3, AR053: 3, AR096: 2, AR052: 2, AR055: 2, AR104: 1, H0677: 8, L0617: 4, H0650: 3, H0457: 3, T0041: 3, H0657: 2, H0486: 2, | | | 237-257, 130-146, 71-87, 48-64 |

754	HCE3E13	869962	764	299 - 688	2169		H0581: 2, H0264: 2, H0652: 2, S0144: 2, S0002: 2, H0529: 2, L0662: 2, S0436: 2, H0713: 1, S0114: 1, H0254: 1, S0354: 1, S0360: 1, H0580: 1, H0485: 1, H0046: 1, H0594: 1, S6028: 1, H0271: 1, H0416: 1, H0388: 1, H0591: 1, S0440: 1, S0344: 1, S0426: 1, L0761: 1, L0766: 1, L0804: 1, L0655: 1, L0666: 1, L0664: 1, H0698: 1, H0435: 1, S0328: 1, H0539: 1, H0445: 1, S0434: 1, H0542: 1 and H0423: 1.	AR052: 18, AR053: 18, AR055: 14, AR096: 14, AR089: 11, AR104: 9, AR060: 9, AR033: 8, AR039: 7, AR061: 7 H0318: 1, H0052: 1, H0264: 1, S0386: 1 and H0521: 1.	101-117
755	HRAAH37	869969	765	40 - 489	2170	Met-1 to Asn-8, Ala-16 to Glu-45, Ser-57 to Val-62, Pro-101 to Cys-113.		AR039: 9, AR053: 7, AR055: 6, AR096: 6, AR060: 4, AR033: 7, AR052: 7, AR089: 6, AR104: 5, AR061: 4	76-93, 126-142

| 756 | HTOFB26 | 869981 | 766 | 77 - 649 | 2171 | Ala-7 to Lys-12, Gln-49 to Asn-56. | AR096: 7, AR060: 6, AR055: 5, AR089: 5, AR039: 5, AR033: 5, AR053: 4, AR052: 4, AR104: 3, AR061: 3 H0264: 1 and L0584: 1. | H0650: 1, H0318: 1, H0264: 1, H0555: 1 and H0677: 1. | 167-183, 141-157, 13-29 |
| 757 | HMELR15 | 870005 | 767 | 262 - 2034 | 2172 | Ser-14 to Arg-19, His-76 to Ser-82, Arg-229 to Leu-235, Asp-283 to Gly-289, Leu-301 to Ser-306, Ala-423 to Gln-429, Gly-444 to Thr-459, Ala-490 to Asp-499, Glu-502 to Gly-514, Ser-527 to Tyr-533, Glu-535 to Leu-545, Leu-578 to Arg-584. | AR055: 6, AR052: 4, AR053: 4, AR060: 4, AR033: 3, AR061: 3, AR089: 3, AR104: 3, AR039: 2, AR096: 2 H0046: 16, L0731: 5, L0758: 5, H0013: 4, S0436: 4, L0596: 4, L0766: 3, H0519: 3, H0521: 3, L0759: 3, H0543: 3, S0116: 2, S0222: 2, S0010: 2, H0266: 2, H0616: 2, H0412: 2, H0623: 2, L0655: 2, L0783: 2, H0547: 2, L0743: 2, L0747: 2, L0591: 2, L0362: 2, T0002: 1, S0114: 1, S0218: 1, H0341: 1, S0212: 1, H0663: 1, L0481: 1, S0354: 1, S0410: 1, H0722: 1, S0046: 1, S0132: 1, | | 211-227, 126-142, 347-363, 462-478, 29-45, 105-121, 237-253, 307-323, 147-163 |

758	HTDAF92	870067	768	256 - 1011	2173		178-194
					Leu-23 to Val-28, Gly-94 to Asn-105, Asp-132 to Arg-140, Ser-154 to Asn-164,	S0476: 1, H0393: 1, L0717: 1, H0369: 1, H0392: 1, H0587: 1, T0039: 1, T0040: 1, H0156: 1, H0318: 1, H0230: 1, H0544: 1, H0545: 1, L0041: 1, H0014: 1, H0267: 1, H0252: 1, H0688: 1, H0644: 1, H0606: 1, H0135: 1, H0591: 1, H0038: 1, H0087: 1, H0488: 1, H0413: 1, S0038: 1, T0041: 1, H0561: 1, S0440: 1, H0695: 1, L0369: 1, L0763: 1, L0638: 1, L0764: 1, L0662: 1, L0651: 1, L0806: 1, L0657: 1, L0518: 1, L0809: 1, H0144: 1, H0520: 1, S0126: 1, H0435: 1, H0660: 1, S0013: 1, H0627: 1, S3012: 1, S0027: 1, L0741: 1, L0744: 1, L0748: 1, L0786: 1, L0779: 1, S0031: 1, S0260: 1, L0599: 1, L0608: 1, L0595: 1, S0011: 1, S0242: 1, H0423: 1 and H0422: 1.	AR060: 3, AR089: 2, AR033: 2, AR039: 2, AR053: 1, AR055: 1, AR061: 1, AR104: 1,

No.	Clone	ID	SEQ	Range	SEQ ID	Positions	Clone counts	Regions
						His-196 to Pro-203, Arg-227 to Ala-232.	AR052: 1, AR096: 1 L0439: 3, S0222: 2, H0543: 2, S0360: 1, H0622: 1, H0063: 1, H0477: 1, T0042: 1, L0369: 1, L0771: 1, L0662: 1, L0659: 1, L0809: 1 and L0786: 1.	67-86, 131-149, 49-66
759	HTLIV78	870098	769	109 - 603	2174	Pro-9 to Asp-14, Arg-101 to Gln-113.	AR039: 25, AR104: 13, AR055: 12, AR096: 12, AR053: 12, AR033: 11, AR089: 9, AR060: 8, AR052: 8, AR061: 7 L0758: 10, L0794: 3, H0618: 2, H0038: 2, H0253: 1, L0768: 1 and L0789: 1.	
760	HTLEI29	870142	770	106 - 1287	2175	Thr-92 to Phe-104, Pro-121 to Lys-127, Arg-178 to Gly-184, Ser-219 to Asp-224, Pro-237 to His-242, Ser-348 to Gly-353.	AR055: 17, AR039: 11, AR033: 10, AR053: 10, AR061: 8, AR089: 8, AR052: 7, AR060: 7, AR096: 6, AR104: 5 H0253: 15, H0618: 12, L0758: 11, L0779: 10, H0150: 1, L0768: 1 and L0790: 1.	269-288, 364-380
761	HTLGX79	870181	771	121 - 543	2176	Arg-3 to Ser-9, Gly-15 to Arg-40.	AR055: 7, AR033: 5, AR039: 5, AR096: 5, AR052: 5, AR053: 5, AR104: 4, AR060: 4, AR061: 4, AR089: 3	57-74

| 762 | HHFOV07 | 870237 | 772 | 28 - 975 | 2177 | Pro-116 to Ser-127, Glu-130 to Leu-135. | L0803: 15, L0794: 8, L0731: 7, L0758: 7, H0253: 6, H0618: 4, L0804: 4, L0809: 4, L0439: 4, L0754: 4, S0442: 3, L0752: 3, H0556: 2, S0045: 2, T0010: 2, H0622: 2, H0553: 2, H0135: 2, L0770: 2, L0662: 2, L0775: 2, H0144: 2, L0741: 2, L0747: 2, H0171: 1, H0713: 1, S0218: 1, H0661: 1, S0046: 1, H0550: 1, S0222: 1, H0586: 1, H0333: 1, H0486: 1, S0010: 1, H0421: 1, H0194: 1, H0564: 1, H0687: 1, H0039: 1, H0616: 1, S0038: 1, H0100: 1, H0633: 1, L0763: 1, L0800: 1, L0642: 1, L0764: 1, L0768: 1, L0776: 1, L0656: 1, L0659: 1, L0382: 1, L0666: 1, H0593: 1, L0740: 1, L0755: 1, L0757: 1, S0434: 1, S0436: 1 and H0665: 1. | AR055: 6, AR060: 5, AR052: 4, AR053: 3, AR089: 2, AR033: 2, AR061: 2, AR096: 1, AR104: 1, AR039: 0 | 162-178, 95-111, 16-32 |

| 763 | HTLDO59 | 870276 | 773 | 40 - 459 | 2178 | Pro-10 to Gly-17, Gly-25 to Thr-37, Asp-39 to Gly-44, Arg-66 to His-71. | H0645: 1 and H0253: 1.
AR039: 64, AR053: 43,
AR052: 34, AR104: 30,
AR033: 29, AR089: 29,
AR096: 29, AR055: 28,
AR060: 19, AR061: 16
H0618: 5, L0758: 5,
S0049: 4, H0253: 3, H0052:
3, H0617: 3, H0494: 3,
H0144: 3, L0747: 3, H0341:
2, H0550: 2, H0424: 2,
L0794: 2, L0766: 2, L0439:
2, L0751: 2, L0745: 2,
L0752: 2, S0436: 2, S0452:
2, H0556: 1, S0114: 1,
H0483: 1, S0358: 1, S0360:
1, H0580: 1, S0132: 1,
H0261: 1, H0559: 1, H0486:
1, S0280: 1, H0575: 1,
L0024: 1, H0546: 1, H0150:
1, H0620: 1, H0024: 1,
T0010: 1, S6028: 1, H0179:
1, H0417: 1, H0038: 1,
T0067: 1, H0059: 1, T0042:
1, S0144: 1, L0637: 1,
L0761: 1, L0768: 1, L0807:
1, L0788: 1, L0791: 1,
H0520: 1, H0593: 1, H0684:
1, S0380: 1, H0696: 1,
H0555: 1, H0436: 1, L0748: | | | 78-98 |

764	HE8TM62	870447	774	8 - 346	2179		AR061: 4, AR055: 4, AR033: 3, AR052: 3, AR060: 3, AR053: 3, AR096: 3, AR089: 2, AR104: 1, AR039: 0 H0013: 1, H0014: 1, H0087: 1, L0742: 1, L0750: 1, L0740: 1, L0754: 1, L0779: 1, L0755: 1, L0581: 1, L0698: 1 and S0424: 1.	63-85, 26-44
765	HJBCS70	870457	775	734 - 186	2180	Met-1 to Cys-7, Gly-21 to Val-28, Lys-46 to Ala-56.	AR104: 124, AR061: 112, AR096: 76, AR055: 74, AR053: 64, AR033: 59, AR089: 59, AR060: 57, AR052: 52, AR039: 36 L0731: 3, H0086: 2, H0717: 1, S0212: 1, H0255: 1, S0045: 1, H0493: 1, H0559: 1, H0052: 1, H0620: 1, S6028: 1, T0042: 1, H0478: 1, L0749: 1, L0758: 1 and S0436: 1.	121-143
766	HTFMP59	870490	776	93 - 641	2181		AR060: 1, AR053: 1, AR052: 1, AR033: 1, AR055: 1, AR061: 1, AR089: 1, AR104: 0, AR096: 0, AR039: 0 H0402: 1, S0418: 1,	145-164, 91-108, 126-142

767	HTEOY86	870519	777	366 - 722	2182	His-73 to His-78.	T0003: 1, H0418: 1, L0055: 1, L0378: 1, L0519: 1, L0744: 1, L0751: 1, L0749: 1, L0756: 1, L0752: 1, L0731: 1, L0758: 1, L0587: 1, L0601: 1 and S0424: 1.	AR055: 11, AR052: 9, AR053: 8, AR060: 7, AR033: 6, AR061: 5, AR089: 5, AR096: 4, AR039: 3, AR104: 2 H0616: 5, H0619: 1, H0618: 1, H0038: 1, L0806: 1, L0666: 1, L0664: 1 and L0750: 1.	33-49, 79-95, 51-67
768	HTEKC55	870560	778	175 - 1164	2183	Ser-4 to Ser-14, Pro-73 to Gly-85, Lys-107 to Gly-115, Gly-201 to Trp-210, Lys-247 to Cys-258, Pro-260 to Cys-265, Thr-281 to Pro-290, Glu-303 to Phe-309.		AR053: 18, AR052: 15, AR055: 12, AR096: 11, AR089: 10, AR060: 9, AR033: 8, AR061: 6, AR104: 5, AR039: 4 H0038: 9, H0616: 2, H0618: 1, L0779: 1 and L0697: 1.	140-159, 167-186, 214-230
769	HTEPK69	870574	779	281 - 2092	2184	Met-1 to Ala-11, Pro-21 to Gln-31, Thr-39 to Glu-55, Leu-59 to Pro-64, Pro-73 to Leu-88, Glu-106 to Glu-116,		AR055: 7, AR060: 6, AR052: 5, AR089: 5, AR033: 4, AR053: 4, AR061: 4, AR096: 4, AR039: 3, AR104: 2 L0794: 6, L0803: 5,	585-601, 357-373, 254-270, 337-353

Pro-149 to Ile-154, Arg-171 to Ile-177, Phe-191 to Pro-201, Arg-291 to Pro-296, His-313 to Asp-318, Pro-441 to Asn-462, Glu-512 to Asp-537, Thr-554 to Glu-568.	L0752: 5, L0758: 5, L0766: 5, H0038: 3, H0616: 3, S0002: 3, L0774: 3, S0126: 3, L0500: 3, H0657: 2, S0418: 2, H0442: 2, H0581: 2, L0483: 2, H0031: 2, H0553: 2, S0344: 2, L0761: 2, L0804: 2, L0655: 2, L0663: 2, L0438: 2, H0682: 2, L0602: 2, L0748: 2, L0439: 2, L0754: 2, L0749: 2, L0777: 2, L0587: 2, S0026: 2, H0265: 1, S0040: 1, T0049: 1, H0583: 1, H0662: 1, S0420: 1, S0358: 1, S0045: 1, H0550: 1, H0431: 1, H0453: 1, H0370: 1, H0497: 1, H0574: 1, H0485: 1, T0060: 1, H0013: 1, T0082: 1, H0253: 1, S0346: 1, H0318: 1, H0196: 1, H0052: 1, L0118: 1, H0012: 1, H0017: 1, T0006: 1, H0644: 1, H0400: 1, H0591: 1, H0063: 1, T0067: 1, H0264: 1, H0488: 1, H0623: 1, H0494: 1, S0016: 1, H0561: 1, S0142: 1, L0638: 1, L0643: 1, L0662: 1, L0499: 1, L0651: 1,

770	HTENV57	870594	780	105 - 497	2185	Ser-2 to Arg-8, Arg-16 to Ser-22, Glu-33 to Asn-40, Lys-70 to Gln-80, Tyr-88 to Lys-94, Lys-110 to Gln-122.	L0378: 1, L0806: 1, L0607: 1, L0659: 1, L0783: 1, L0664: 1, H0547: 1, S3012: 1, L0747: 1, H0445: 1, L0592: 1, L0604: 1, L0595: 1, L0601: 1, H0543: 1, H0423: 1 and H0422: 1. AR055: 10, AR061: 5, AR053: 5, AR060: 5, AR089: 4, AR033: 4, AR052: 4, AR096: 3, AR039: 3, AR104: 2 H0616: 5 and H0038: 1.	44-64
771	HTEJF45	870668	781	135 - 500	2186	Ser-6 to Pro-13, His-15 to Thr-21, Ser-55 to Pro-66, Asn-94 to Ser-101.	AR039: 45, AR053: 33, AR052: 30, AR055: 27, AR096: 25, AR033: 23, AR089: 22, AR060: 21, AR104: 17, AR061: 14 H0618: 2, H0038: 2, L0807: 2, L0768: 1, L0794: 1 and L0758: 1.	101-117
772	HTEGF16	870701	782	299 - 817	2187	Gln-39 to Asp-51, Gln-102 to Leu-107, Pro-118 to Arg-131.	AR039: 39, AR052: 26, AR033: 25, AR053: 22, AR055: 22, AR096: 19, AR104: 19, AR060: 18, AR089: 18, AR061: 13 L0803: 8, H0318: 4, L0800: 4, L0764: 4, L0766: 4, L0372: 3, L0809: 3,	51-82, 150-166

| 773 | HLTGU35 | 870713 | 783 | 200 - 520 | 2188 | Met-1 to Tyr-11, Lys-13 to Phe-18, Cys-22 to Gly-27. | L0750: 3, L0777: 3, H0575: 2, S0010: 2, H0038: 2, L0662: 2, L0794: 2, L0774: 2, L0805: 2, L0659: 2, S0328: 2, L0758: 2, L0591: 2, H0650: 1, H0484: 1, H0369: 1, H0438: 1, H0618: 1, H0390: 1, H0266: 1, H0644: 1, L0770: 1, L0769: 1, L0772: 1, L0643: 1, L0773: 1, L0648: 1, L0375: 1, L0806: 1, L0789: 1, L0663: 1, L0664: 1, L0438: 1, S0126: 1, S0330: 1, H0696: 1, L0748: 1, L0439: 1, L0740: 1, L0754: 1, L0749: 1 and L0779: 1. AR033: 2, AR096: 2, AR104: 2, AR055: 1, AR089: 1, AR061: 1, AR060: 1, AR052: 0, AR039: 0, AR053: 0, S0422: 2, L0439: 2, H0294: 1, S0134: 1, S0358: 1, S0360: 1, H0586: 1, H0570: 1, H0591: 1, S0142: 1, L0598: 1, L0763: 1, L0770: 1, S0374: 1 and L0589: 1. | 59-75, 29-45, 82-98 |

| 774 | HTEDK07 | 870714 | 784 | 21 - 515 | 2189 | Thr-94 to Trp-103, Arg-121 to Trp-140. | AR055: 16, AR039: 14, AR033: 11, AR060: 9, AR104: 9, AR053: 8, AR052: 8, AR096: 7, AR089: 7, AR061: 6 L0754: 3, L0777: 3, L0439: 2, S0116: 1, H0341: 1, H0661: 1, H0038: 1, H0412: 1, L0761: 1, L0667: 1, L0764: 1, L0788: 1, H0435: 1, L0749: 1, L0779: 1 and L0758: 1. | 57-75 |
| 775 | HADGO63 | 870818 | 785 | 1996 - 1418 | 2190 | Ser-33 to Arg-38, Glu-134 to Ser-140, Val-177 to Asn-182. | AR053: 4, AR096: 3, AR033: 3, AR104: 3, AR052: 3, AR039: 3, AR055: 3, AR089: 2, AR061: 1, AR060: 1 L0766: 8, L0438: 4, H0547: 4, L0756: 4, L0748: 3, L0777: 3, H0051: 2, L0754: 2, L0749: 2, L0759: 2, S0040: 1, S0342: 1, T0049: 1, H0638: 1, S0376: 1, S0045: 1, H0619: 1, L0717: 1, H0411: 1, S0220: 1, H0587: 1, H0574: 1, H0427: 1, H0599: 1, S0010: 1, S0346: 1, S0474: 1, H0544: 1, L0471: 1, H0039: 1, H0538: 1, L0770: 1, | 70-89, 101-117, 6-22, 52-68 |

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| 776 | HTAHY24 | 870826 | 786 | 452 - 760 | 2191 | Met-1 to Thr-9, Pro-39 to Ala-48, Pro-51 to Ser-57, Thr-80 to Tyr-92. | L0761: 1, L0771: 1, L0662: 1, L0375: 1, L0805: 1, L0793: 1, L0666: 1, S0053: 1, L0352: 1, S0126: 1, H0435: 1, H0658: 1, H0539: 1, S0152: 1, L0740: 1, L0750: 1, L0755: 1, S0031: 1, L0591: 1 and H0668: 1. AR055: 10, AR060: 6, AR033: 5, AR096: 4, AR061: 4, AR089: 4, AR053: 4, AR052: 4, AR039: 2, AR104: 2 H0635: 2, H0580: 1, H0634: 1, L0731: 1 and L0596: 1. | 55-79 |
| 777 | HDPDO84 | 870936 | 787 | 55 - 567 | 2192 | Ser-35 to Thr-51, Gln-75 to Asp-81, Gly-123 to Asn-135. | AR033: 8, AR089: 6, AR039: 5, AR052: 4, AR053: 4, AR060: 4, AR055: 4, AR096: 3, AR061: 3, AR104: 2 L0755: 12, L0759: 6, L0745: 5, L0794: 4, S0418: 3, L0666: 3, H0520: 3, S0152: 3, L0748: 3, L0779: 3, S0212: 2, H0318: 2, H0031: 2, L0142: 2, H0538: 2, L0766: 2, L0659: 2, L0665: 2, H0519: 2, S0328: | 145-171 |

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780	HAMGO24	870957	790	136 - 549	2195	Ser-12 to Leu-17, Lys-32 to Val-38.	AR052: 5, AR053: 4, AR096: 3, AR039: 3, AR089: 3, AR033: 2, AR060: 2, AR104: 2, AR061: 1, AR055: 1 L0766: 9, L0742: 6, L0803: 5, S0358: 3, H0521: 3, L0777: 3, L0758: 3, H0413: 2, S0466: 2, L0775: 2, L0666: 2, L0779: 2, L0752: 2, S0444: 1, S0360: 1, H0393: 1, H0587: 1, H0486: 1, H0013: 1, H0069: 1, H0575: 1, H0052: 1, H0545: 1, H0510: 1, H0687: 1, S0003: 1, H0553: 1,		51-67, 72-88

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